Lecture
ON THE
TEACHING OF MEDICINE IN EDINBURGH UNIVERSITY.

INTRODUCTORY TO THE COURSE OF PRACTICE OF PHYSIC.

BY PROFESSOR GRAINGER STEWART, M.D.

GENTLEMEN,—I do not generally commence my course by the delivery of a formal introductory lecture, but prefer to devote the first day of the session to a plain statement of the objects of the course, and the methods to be pursued; but occasionally special circumstances arise which seem to demand a lecture of a somewhat different kind. And such circumstances have arisen to-day. For we look forward to witnessing to-morrow what we may justly regard as a national event, but more especially a great event in connexion with the teaching of our art in Edinburgh—the opening of the new Royal Infirmary. Such an event as this seems to make it desirable to devote this lecture to a consideration of the past, the present, and the future of the teaching of medicine here.

Two hundred years ago the University was already a century old. It was doing excellent work in its Faculties of Arts and Divinity, but afforded no opportunity of obtaining instruction to those who selected the profession of medicine. Scattered throughout the literature of the country we find incidental references to the existence of medical men in Scotland, and evidence that their knowledge was held in high esteem. In an oft-quoted passage Lindsay of Pitscottie tells us that "King James the Feird was learned in the airt of medicine, and ane singular gude chirurgiane, and there was none of that profession, if they had any dangerous cure on hand, bot would have craved his adwyse."[1] And Sir James Simpson has collected from some of the old statements of expenditure still preserved in the Register Office, some curious evidences of gratuities awarded by the monarch to people who submitted themselves to his treatment. In 1491, "Item to Domenico to gif the King leve to lat him blud, xviii shillings;" and, again, "Item to ane fallow, because the King pullit furtht his twtht, xviii shillings." Again, "Item to Kynnard ye barbour, for twa teith drawin furtht of his hed be the King, xviii shillings." And, lastly, "Item to ye blind wif yat hed her eyne schorne, xiii shillings."[2] These facts may recall to some of you the circumstance that historians enumerate among the high qualities of Henry VIII. his being an excellent physician, so that medicine must have been a favourite study of royalty in those days.[3] That there were practitioners about the Court of James the Fourth who had medical degrees is shown by a curious passage in a poem addressed to the King by Dunbar:—

> "Sir, ye have mony servitours,
> And officers of divers cures,
> Kirkmen, courtmen, craftsmen fine,
> Doctors in jure and medicine."

From the Records of the Burgh of Edinburgh I find that on the 9th of February, 1557, the Council ordained James Adamsoun "to pay to John Wauchlott, officer and chirurgeane, the sowme of thre pundis for curing and mending of James Hendersonis leg in the townys service, at the taiking of Ramsay, ane thief, quha wes slane in the taiking."[4]

From the Report on Historical Manuscripts I find that in various parts of Scotland the office of coroner existed in the fifteenth and sixteenth centuries. In Argyllshire, for example, various charters refer to the office. But one of the most curious facts, in a medical point of view, laid before this commission by Mr. Fraser in his Report on the Argyll Papers, is, that an office existed, appointed by royalty, entitled that of the principal physician within the isles of Scotland. From a charter dated July 10th, 1609, granted by King James VI. in favour of Fergus M'Beath, in Ila, it is seen that this gentleman received that appointment, "with all the profits and casualties belonging thereto," along with certain lands, which were thereby feudally vested in him, and to be transmitted to his family. Such incidental references are to be met with here and there; and it is, of course, well known that so early as 1505 the surgeons of Edinburgh were formed into a corporation, and, as Maitland says in his History of Edinburgh, "according to the custom of other European nations, were incorporated with the barbers"; but before this official incorporation it is clear that they possessed some sort of corporate existence, for certain officials called "the kirkmaister and brether of the surgeanias and barbouris" appeared before the Council to support their petition. In 1681, the physicians of Edinburgh, who had long been aiming at incorporation, received from Charles II. a charter constituting them the Royal College.

We know, unfortunately, very little as to how the practitioners of these early days received their education. The surgeons learned their work by the system of apprenticeship, those who wished to join the craft being apprenticed to a member of the guild, whose practice he watched, and with whom, like other apprentices, he lived in family. But their class education must have been very deficient. Although the teaching of anatomy was contemplated from the time of the incorporation of the surgeons, it must have been very inadequately performed, for, in the year 1671, a skeleton of a Frenchman brought from Paris was regarded here as a very great curiosity. It is described in a catalogue of rare and valuable articles belonging to the University as being "neatly and cleanly done, and covered with a white sheet, and wants three teeth above and four below, and the forefinger or joint of the right hand is dropt off. He hangs in a very convenient oblong box of timber, which, opening with three doors, exposes all parts of him to view."[5] Thus, more than a century and a half after the charter was granted to the surgeons, there can have been scarcely any opportunity for the real study of anatomy. Home-bred physicians must have derived much of their knowledge from seeing the practice and receiving the oral instructions of their seniors, though perhaps they, like other physicians of their time, thought more of mastering the dicta of Hippocrates and Galen than of observing disease for themselves.

The fact that wealthy Scots sought to secure the services of foreign physicians, that sometimes they went abroad in order to consult individual practitioners, and that in one instance a rich Archbishop of St. Andrews called for consultation a physician from beyond the Alps, shows that the repute of native doctors was not then very high. Doubtless a consciousness of the defects of home training stimulated candidates for medical honours to visit foreign seats of learning, and led not a few Scotchmen, towards the end of the sixteenth and throughout the seventeenth centuries, to Leyden, Paris, Rheims, Padua, and Wittemberg.

Sir Robert Sibbald, who had been one of the principal agents in getting the charter for the Royal College of Physicians, was, in 1685, appointed by the Town Council the first Professor of Medicine in the University. Later in the same year Dr. James Halkett and Dr. Archibald Pitcairn were appointed professors, that they might unite their efforts with those of Sir Robert in teaching the science of medicine. Apparently they did not accomplish much as teachers, for the only token of Sir Robert's activity which Bower, the historian of the University, was able to find, consisted in an advertisement in the *Edinburgh Courant* of 14th February, 1706, in which it was stated when the course was to commence, that it was to be delivered in Latin, and that none would be admitted but such as understood Latin and Greek. [From the wording of the advertisement, it appears that he did not teach in the College, but in his own house, which was situated in Carrubber's-close, High-street. Probably he perceived clearly enough the advantages that would follow the establishment of a medical school in Edinburgh University, but he could not, even with the assistance he had secured, succeed in establishing it. There is no evidence that Dr. Porterfield, who was elected Professor of the Theory and Practice of Physic in 1724, ever delivered lectures; and it was not till four young physicians, who had been educated abroad, made a fresh start in the teaching of medicine, that anything was accomplished.

[1] Chronicles of Scotland, vol. i., p. 249.
[2] Archæological Essays, vol. ii., p. 309.
[3] Froude's History of England, vol. i., p. 175.
[4] Extracts from the Records of the Burgh of Edinburgh, p. 16.
[5] Lonsdale's Life of Knox, p. 51.

In 1720, these four young men—Dr. Andrew Sinclair, a graduate of Angers; Dr. John Rutherford, a graduate of Rheims; Dr. Andrew Plummer, a graduate of Leyden; and Dr. John Innes, a graduate of Padua, began, with the approval of the Town Council, to teach the theory and practice of medicine and chemistry in rooms connected with the old hall of the College of Surgeons, where the first Monro had taught anatomy before he was transferred to the University. After a few years' work outside, the four teachers, upon their petition, supported by the Royal College of Physicians, were admitted within the University as professors. It is recorded in the Council minutes that on the 9th of February, 1726, "the Council being fully convinced that nothing can contribute more to the flourishing of this, or of any other college, than that all the parts of academical learning be professed and taught in them by able professors, they were of opinion that it would be of great advantage to the college, city, and country that medicine in all its branches be taught and professed here by such a number of professors of that science as may by themselves promote students to their degrees with as great solemnity as is done by any other college or university at home or abroad," and they accordingly appointed the four gentlemen I have named, and thus the Medical Faculty of the University became fairly constituted.

In 1728 the first steps were taken for the establishment of the Infirmary. A house was rented, and six beds for the sick poor were established in it. An arrangement was made whereby the apprentices of the surgeons and the students of physic should have the opportunity of observing the practice at the bedside; and when the Infirmary to which we are now bidding farewell was opened, careful arrangements were made to regulate the clinical work. The earliest developments of clinical study must certainly be regarded as very crude. A clerk received a salary for copying into a ledger records of the cases treated in the wards, and he was further entrusted with the duty of reading aloud in the hearing of the students the records that he had made. From this reading your predecessors made their clinical notes. No doubt they also saw much at the bedside; and there is evidence that the readings of the clerk were felt to be of use to the students, for his times of reading were extended; but in the year 1748 a better plan was introduced. Dr. John Rutherford, who was then Professor of Practice of Physic, proposed to establish clinical lectures. His plan of lecturing seems to have been very much like that which is still followed, and its value was instantaneously felt, for the students seem to have perceived that they thus derived a far better conception of the cases under treatment than they did from their own unaided observation, or from the reading of the clerk; the professor, probably, discovered that his teaching was correspondingly improved, for practical interest in cases always greatly facilitates the acquisition of theoretical knowledge; while the managers of the infirmary found their institution made more popular and their pecuniary resources augmented by the increased number of students which the lectures attracted.

The Professor of Practice of Physic was not long left to conduct the clinical course alone. Soon a number of his colleagues in the university were associated with him in the arduous work, for I find that in the year 1756 three other professors co-operated with him in the course of the five months' session, each taking duty for five weeks. During the first part of the session there was the Professor of Anatomy, Dr. Alexander Monro; the second, the Professor of the Institutes of Medicine, Dr. Whytt; the third, the Professor of Practice of Physic, Dr. Rutherford; and the fourth, the celebrated Dr. Cullen, who afterwards adorned the Chair of Physic. It was an immense advantage, and one which, I hope, may always be retained in Edinburgh, that the students thus obtained the opportunity of seeing the practice, not of one professor, but of three or four.

But ideas as to clinical teaching gradually advanced. Mere *ex cathedrâ* statements by professors, however experienced, no longer sufficed; and the system which had been considered so nearly perfect in the middle of the last century was rather lightly esteemed in the beginning of this. In this we have an instance of a great rule which one may constantly observe in operation in different spheres of life—that the great step-in-advance of to-day becomes a matter of course to-morrow, and at last is displaced by some new suggestion. Dr. Graves, of Dublin, complained that, when he studied here in 1819, the clinical teaching was most defective, and he says that he feared that many were annually dubbed doctors at Edinburgh who had scarcely ever been called upon to write a prescription. But such an assertion could not have been justly made thirty years later, when, under the leading of Professor Hughes Bennett and others, the present practical system had been developed.

At the present time medicine is taught in the university by means of systematic and clinical courses. Let me explain to you the objects and methods of each. The aim of the course of systematic lectures is to give in bold outline a description of the features of the various types of morbid action, and of these types as they manifest themselves in the different parts and organs of the body, also to describe the treatment which each condition demands. To anyone acquainted with the subject it must be apparent that it is impossible to do this work adequately within the limits of a single winter session, but as the present regulations for graduation require attendance during only one session, and as many students, however anxious they may be for a more extended course, are prevented by pressure of other work from attending more than once, an effort is made to render the course in each session as complete as possible. In different years, however, more time is devoted to one group of diseases and less to another; thus, for example, last session much attention was given to diseases of the alimentary and nervous systems, this year these will be described with much less minuteness, but the account of constitutional maladies and fevers, which it was necessary to shorten and in part omit last year, will take a leading place. It would be impossible to overtake so much even as we do, if we had not recourse to the printed slips which I adopted when first beginning to teach practice of physic. Every day, as you enter the class-room, each of you will receive one or more printed slips, constituting a syllabus of the lecture of the day. All the slips are arranged on a uniform plan, and each in a methodical way indicates the salient features of the disease to which it refers. The lecture generally closely follows the arrangement of the slips, so that if you gum them into your note-books, at the head of each section of your notes, you will find that they aid you materially in forming a clear and definite conception of the malady. Your predecessors have assured me that they have found the slips as helpful in study as I find them in teaching.

The systematic course is of use as guiding you to a correct and appreciative observation of the phenomena of disease, and it should impress upon you a first broad outline of the territory with which you are afterwards to become familiar from the detailed descriptions of others, and by your own observations. You will find the study somewhat arduous on account of the large number of facts which must be detailed, on account of the extreme condensation which is necessary, and very specially because of the difficulty at the present time of laying down principles capable of wide application. But if you compare the descriptions given in the class-room with the cases you observe in the wards, noting their points of correspondence and of difference, you will find that with wonderfully little effort your knowledge grows up towards completeness.

The course of clinical medicine consists of (*a*) lectures on cases under treatment, and (*b*) studies at the bedside. I have shown you how these clinical lectures took origin more than 130 years ago, and have told you of the favourable impression which they at first produced. Nowadays it is necessary rather to vindicate the usefulness of the clinical lectures, because the other method of teaching—the bedside instruction—is (and I think justly) more highly appreciated. Consider their advantages. Not unfrequently it is possible for us to bring patients into the lecture-room, and there demonstrate the features of their maladies, and even when this cannot be done, I know of no method more profitable than clinical lecturing, for the comparison of an individual case with the type, or of a group of cases with the type and with one another. The clinical lecture also affords opportunity which cannot be obtained in the systematic course, or in any other way, for a detailed exposition of some special and remarkable feature of disease, a discussion of an important symptom as it has shown itself in different cases, or of the uses of and modes of using a particular remedy. But I could not speak so favourably of the clinical lectures if they were mere systematic disquisitions tacked on to a brief description of a case. An old friend once told me that he met a hospital physician who had been working hard in town all autumn, and who, in answer to an inquiry what the work had been, innocently replied that he had been

writing his clinical lectures for next winter. I do not know whether the clinical lectures proved useful or not, but I believe that the Edinburgh students of the present day would not relish such productions. Good clinical lectures must be the fruits of accurate and thoughtful study of the individual cases to which they relate.

The clinical lectures are delivered by the four ordinary clinical professors in rotation, and the professor of obstetrics gives once in three weeks a gynæcological lecture. The class will meet in the theatre provided for its use in the university department of the new Royal Infirmary. Those of you who have experienced the discomforts of the old pathological theatre will rejoice in this change, although the old lecture-room had been consecrated by the labours of many masters in the art.

Bedside teaching is, as I have said, by far the most important of the clinical course. When the medical school of the university was smaller, it suited quite well to have one or two professors on duty at a time; but now, with a clinical class approaching two hundred, it is necessary that the whole clinical staff should simultaneously engage in teaching. By this means the class is distributed throughout the university wards, so that every student has the opportunity of really coming into contact with the patients. Four of the professors teach clinical medicine generally; while the fifth, the professor of obstetrics, devotes himself to the diseases of women. Every effort is made to enable you to perceive the facts involved in the cases, to teach you to discriminate between different conditions under observation, to reason soundly upon the facts observed, to determine the line of treatment, and to watch its result.

But this year our bedside teaching is, in consequence of the opening of the new Royal Infirmary, to be conducted under conditions vastly superior to those which have hitherto existed. The noble architectural features of the new infirmary buildings, the very remarkable position which they occupy, within easy reach of the poorest parts of the city, close to the university, and yet occupying an elevated and open situation, with views of hills and of trees, and abutting on one of the finest public parks of the city, constitute advantages which no one could overlook. But its internal arrangements have been determined after the most thoughtful consideration and careful and extended inquiries on the part of the architect, the superintendent, and the managers; and I am anxious that you should appreciate them. The first essential in hospital construction is abundance of air and light. The evils of overcrowded wards are well recognised in surgical practice, but, although less obvious in medical cases, they are not less real. And this is true, not only of fever wards, but of general medical wards; overcrowding, or the presence of some peculiarly unhealthy case, lowering the vitality, and otherwise exerting an injurious influence upon the patients. In our new wards, air and light are abundant. The hospital being built on the pavilion plan, there are windows on each side of the ward, and at one of the ends. The wards are 112 feet long, 28 feet broad, and 15 high, and are arranged to accommodate twenty-one patients. The beds are separated from one another by a distance of at least six feet, and thus the evils and discomforts of close approximation are avoided. The cubic space allowed is 2350 feet for each bed. The architect, Mr. Bryce, tells me that the space is larger than that allowed in the Herbert Hospital and in the new St. Thomas's Hospital in London—two of the best of the recently-constructed hospitals in this country, for they have 1200 and 1800 cubic feet per patient respectively. But no available cubic space would suffice if there were not arrangements for the removal of the impure and the supply of pure air. In our wards the ventilation outwards is by extraction, a central-heated chamber being in connexion with the ventilating structure in the different wards. At each corner of the wards there are shafts with two openings, one low down, the other high up; and beneath each bed there is an opening leading to the extracting apparatus. By these means all noxious vapours will be readily removed. But a further aid has been arranged in connexion with the gas brackets, for over each of them is a receiving tube, which will carry off other waste products besides those of the gas. The open fireplaces are also valuable ventilators. For the supply of fresh air we are to depend to a large extent upon the windows, all of which are made to open at three places. At the top, fourteen feet from the ground, there is an arrangement for swing-opening, which may be kept closed or opened to a very small extent, or to several feet. From the swing arrangement it is anticipated that both an outward and an inward current may be secured at the tops of the windows. The sashes are also movable, and by them fresh air may be admitted at the level of the sill or at the top of the window. But as in our climate direct opening of windows is often unsuitable, each ward has also been provided with three Galton grates. These grates are so arranged that a current of fresh air is admitted to a chamber situated behind the back plate of the grate. In this chamber the air becomes heated, and from it is passed on into the ward by an opening above the chimney-piece. Each grate is calculated to yield per hour 100,000 feet of fresh air warmed up to a temperature of 60° F. In such spacious rooms the heat derived from the grates alone would, of course, be insufficient to keep up a satisfactory temperature. Therefore advantage is taken of a complete system of steam-pipes, which are distributed throughout the house, and by means of which it is expected the air of the wards will be maintained at a comfortable heat.

The next essential is an efficient system for the removal of excreta; and in connexion with every ward there are very complete arrangements. The demands made by an infirmary upon the public drainage system, although formidable enough, are not so great as those of an ordinary town district of similar extent, for the population inhabiting the eleven acres of infirmary ground will be much less than that of adjoining spaces occupied by dwelling-houses. But the liability to infectious excreta makes the hospital drainage of special importance, even in an infirmary like ours, where infectious cases are not received. All the drains proper to the house are therefore carefully ventilated by means of pipes, which pass away above the ridge of the roof, far from any windows. The drains and pipes have further arrangements of double traps, so as to make them as secure as possible. The water-supply for drinking purposes is quite distinct from that for the watercloseets and baths. Baths and lavatories of the most approved kinds are attached to each ward. When you visit the wards you will see the arrangements that have been made for supplying the food to the wards in good season, the ward-kitchens, the recreation-rooms, doctor's-rooms, and other conveniences connected with them.

Gentlemen, when I think of the discomforts of the old infirmary, of its cubic space of something like a thousand feet for each patient, of its deficient ventilation and superabundant draughts, of its inconvenient watercloset and lavatory arrangements, and its scarcely accessible baths, I feel that we cannot be too grateful for the generous efforts which have been made, without any kind of Government aid, to provide in the capital of Scotland a noble institution, open to every comer if only he be sick and poor, and for the great medical school of Edinburgh a hospital which can hold its own with any in the world.

But I would not have you for a moment suppose that I forget the merits of the old infirmary, and its benevolent founders. It, too, was a noble edifice for its time, and in it work has been done both in the way of observation and teaching which it will be difficult for us and our successors to surpass. The words which you must often have noticed on the front wall, near the doorway—"I was sick, and ye visited me; I was naked, and ye clothed me,"—indicate the motive which led to its erection and support; and, looking back upon its history, we cannot but feel how amply and how well this conception has been realised.

Besides the regular clinical teaching in the wards, there has been introduced of late years another course of instruction—the clinical tutorial class. This class is intended to initiate the student into the methods of examination of patients, and, in particular, the physical examination of the heart and lungs. It is manifest that such training cannot be given by the clinical professors, and the tutor is entrusted, under their superintendence, with the work of training and drilling in those respects. This kind of instruction constitutes an essential link between the systematic and the clinical courses. The opportunities afforded by this class have been largely taken advantage of by the students, and I consider that anyone who fails to avail himself of it is neglecting an important means of self-improvement.

Gentlemen, in regard to your own clinical studies there are four particulars which I would advise each of you to keep steadfastly in view. First, that throughout the whole period of your attendance you should watch the individual cases which come under your notice; see that you understand what is being done for them; compare their features

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with the general description given in the systematic course; and keep brief notes of the leading points. Second, that at the commencement each of you should attend the tutorial class, and take great pains to educate yourselves in physical diagnosis. Third, that each should aim at obtaining a clinical clerkship, so as to be entrusted with the duty of keeping the official records of cases. But this should not, as a rule, be attempted before you have had some experience at the bedside, some tutorial instruction, and, if possible, a course of systematic lectures. Fourth, that you should prepare, during the time that you are clerks, or at all events during the later period of your ward attendance, what we call "studies of cases." These studies consist in a narrative, with comments suggested by your own observation or your reading. I have for many years sought to stimulate the production of such studies, and the university authorities have lately on two occasions given them their *imprimatur*. The Wightman Prize in Clinical Medicine is awarded annually to the student "who shall write the best dissertation on any subject presented by the Medical Faculty, or who shall make the best report and commentary on cases which have during the previous winter and summer sessions been treated in the university clinical wards of the Royal Infirmary." And the same idea has been kept in view in arranging for the new Leckie-Mactier Fellowship, which consists of the free annual proceeds of £2000, is tenable for three years, and is open to bachelors of medicine of not more than three years' standing. The award will be to a large extent determined according to the value of written reports and commentaries on medical, surgical, and gynæcological cases. The sanction thus given to this kind of study, and the advantages which will flow to you from its successful cultivation, should lead you all to pay special attention to it; and I may suggest that such essays would prove alike interesting and useful if read as communications at your Royal Medical Society.

As to the future of the teaching of medicine, I shall throw out only a few suggestions. We look forward with much pleasure to the transference of the whole medical faculty to the new university buildings which are in course of erection, and in which we shall find abundance of space, and every other facility for teaching and for research. As to the systematic lectures, I hope that ere long attendance during two sessions will be made compulsory, and the occupant of the chair be thereby enabled to do more justice to the many important subjects included in the department of practice of physic.

As to the clinical course, I hope to see each of the clinical professors supplied with an ample number of beds, and with a full staff of assistants. It is, I have no doubt, much regretted by the managers of the infirmary that they have been compelled to refuse to open one male ward more, so that each professor should at once have a sufficiency of beds for clinical instruction. We hope that the generosity of the public will soon enable the managers to comply with this reasonable request of the university authorities. I am sure that its opening will not be long delayed if once it is understood that not only is teaching hampered, but that many an urgent case must be refused admittance, although spacious wards are standing empty, merely because of the poverty of the institution.

Longer attendance in the wards is also desirable, and if the number of students goes on increasing a further development of the tutorial system may be required. After a time the tutorial class may have to be conducted, not by one tutor, but by a group of tutors, each training and drilling a small party of students with individual attention, one or more taking up the subject of the physical examination by means of percussion and auscultation; one training in the examination of urine and other secretions, and one in the use of the laryngoscope; one in the use of the ophthalmoscope in relation to medical diagnosis; one in the applications of electricity to diagnosis and treatment; and one perhaps in the special details of bedside management, of which the young practitioner is so often ignorant.

From what I have said it will be apparent that, in my opinion, the time has now come when the period of study for the degree of Bachelor of Medicine should be extended to five years. The amount of information presented to the student during the curriculum is so great that, were it not for the improved modern methods of teaching, it would not be possible for him to acquire an adequate knowledge of it. And even with the advantage of these methods, to the average student the work is very severe. But if more time could be allowed so that, at the end of the third year, he could have finished with the purely scientific departments, and, upon the grand foundation of knowledge and capability which our university training affords, could proceed during the remaining two years to the study of the practical subjects, his work throughout would be less arduous, and the education more complete.

Lecture
ON THE
PECULIARITIES OF RINGWORM, AND ITS TREATMENT.

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GENTLEMEN,—I do not propose to describe to-day the ordinary features and history of common ringworm; with those features you have become well acquainted in the Skin Department of this hospital. I wish, however, to supplement my teaching in that department by calling your attention to certain peculiarities in this disease, and more especially to point out the principles that should guide you in its treatment.

First, with regard to the *distribution* of tinea tonsurans in Europe, there are some curious facts difficult to explain—I mean its comparative rarity in Germany, and its great prevalence in France and England. All our German *confrères* who visit the skin departments of our hospitals, express astonishment at the large number of cases of ringworm. The disease is equally prevalent in England and France. In the latter country, however, it attains its greatest degree of severity; here we seldom meet with those severe forms which produce permanent bald patches, and which are not uncommon on the other side of the Channel. Moreover in France the disease often attacks the beard and whiskers, giving rise to the affection known as tinea sycosis. I am unable to explain these facts, except on the supposition that some races, like some individuals, are more liable to this troublesome malady than others, or possibly that climate or mode of life may have an influence on it. One thing is certain, that some families even here are much more readily and obstinately affected than others. I have from time to time received communications from medical men in the country to the effect that they have had a sort of epidemic of ringworm in their neighbourhood, and that they have cured all their patients except the children in one or two families, who have defied treatment, though tended with equal care, and treated by the same remedies.

There is another fact to which I would direct your notice, and that is, that our most neglected class of children—"gutter children," as they are called—are practically exempt from tinea tonsurans. The chief reason of this is that they do not attend school and do not, as a rule, associate with school children, and perhaps partly because they do not use brushes. This fact is at all events sufficient to explode the old idea that ringworm has anything whatever to do with want of cleanliness. It also leads me to call your attention to the way in which the disease is propagated—namely, by schools. They are, so to speak, the nurseries of ringworm. When it appears in a family it is almost always introduced by the child who goes to school. One of the most striking peculiarities of this affection is the influence that age exercises upon it. We rarely meet with ringworm of the scalp in an adult, and when it attacks the body, it often disappears again without treatment—in short, it dies a natural death. And what is still more remarkable is that even inveterate cases of the disease, that have defied all treatment, usually get well as soon as the child reaches the age of fifteen or sixteen. There are, of course, now and then exceptions that prove the rule. One might be tempted to suppose that vegetable parasites have a predilection for young and tender

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skin, but this, at all events, does not apply to the parasite of pityriasis versicolor, which is essentially an affection of adult life. Again, infants at the breast often get ringworm, but I have never met with a case in which the eruption has given much trouble; the mildest remedies cure it. No doubt the imperfect development of hair may account for this fact.

Let me next direct your attention to some peculiarities in the *appearance* of tinea tonsurans. Generally, nothing is easier than the diagnosis of this affection. One or two scurfy, itching spots on the head, of somewhat rounded form and studded with opaque, broken, and twisted hairs, leave no doubt as to the nature of the disease. But the cases that come before us are not always of this typical kind, and that the diagnosis is somewhat difficult is proved by the fact that a difference of opinion often exists as to the nature of a particular case. Everyone knows, for example, that it is a really difficult matter to differentiate between tinea tonsurans and favus in certain stages of the latter disease; but as you will very rarely be called upon to treat favus in this country, I shall dismiss that part of the subject. You are well aware of the fact that ringworm of the scalp presents a different appearance from ringworm of the trunk. If you observe a large number of cases of ringworm, you will find a certain proportion which have, in addition to the eruption on the scalp, a few small, red, scurfy spots on the face, neck, or other parts of the body; you have little difficulty in determining that these red spots are produced by tinea tonsurans; but supposing similar spots occur on a child who has no ringworm of the head, and you have no history of the disease in the family, you may then have great doubt as to their nature, for they closely resemble little spots of so-called simple pityriasis or dry eczema. I would remark, however, that the ringworm spot is usually of a brighter colour, and has a more abruptly defined margin; if one of the spots is of a rounded form, with a narrow, bright, slightly raised edge, that will of course greatly help your diagnosis. A *solitary*, round, scaly spot, even without a distinct margin, should always make you suspect tinea tonsurans, and induce you to make a careful examination. Returning to ringworm of the scalp, which is far more important than that of the body, we notice that there are several forms or stages in which the diagnosis is a little difficult. (1) In a very early stage, before the hair is visibly affected, we find only red, scurfy little spots, which may be very easily overlooked or mistaken for some other affection. As this is an important stage of this disease with reference to the treatment, it is necessary to be on the look-out for it. The hair will generally be found to be abnormally brittle over these spots, although to the eye it may appear natural. (2) We now and then meet with chronic cases in which the hair grows freely over the head, no patches of any kind are found, and the skin looks generally healthy; but a careful examination with a magnifying glass detects isolated or small groups of hairs, scattered here and there over the head, presenting all the characters of tinea tonsurans. Dr. Alder Smith, who has had great experience in this affection, tells me that these are the cases most frequently overlooked by medical men, and supposed to be cured when they really are not. This is hardly to be wondered at when we consider how difficult it is to find isolated hairs; indeed, if you do not know beforehand that the child has suffered from tinea, there is nothing to lead you to a correct diagnosis. (3) Tinea tonsurans is easily masked by attendant eczema, especially when the crusts are thick; under these circumstances a careful examination of some of the hairs is necessary. *A shedding of the hair in patches*, in a case of eczema, should always make you look out for tinea tonsurans. (4) I have occasionally pointed out to you examples of ordinary ringworm which lead to *perfectly smooth bald patches*, not to be distinguished by the naked eye from alopecia areata; indeed, if you have not the opportunity of watching these cases as they pass through their early stages, it is almost impossible to say whether you have before you area or tinea tonsurans; all the diseased hairs have, in fact, been shed. I have on several occasions met with an instance of this in a family affected with tinea tonsurans, the other cases being of the ordinary form. As I have elsewhere pointed out, it is this variation from the usual course that has given rise to the erroneous idea that there exists a disease—*tinea decalvans*—distinct from tinea tonsurans on the one hand, and from alopecia areata on the other. (5) You may possibly mistake some few cases of alopecia for tinea tonsurans. Under ordinary circumstances it is very easy to distinguish between the two. In area the hair comes off freely and quickly, leaving a clean bald patch; moreover, it occurs especially at the occiput and behind the ears, and the eyebrows are often affected; but now and then the hair is not shed freely, and we find partially bald, round patches, covered pretty thickly with short, stumpy and broken hairs, having a close resemblance to common ringworm. A little care and the microscope will, however, enable you to avoid an erroneous diagnosis. We have now under observation, as an out-patient, an example of this in a young man in whom the hair is much thinned and broken over nearly the whole of the scalp, but which is nowhere quite bald, and if he were not losing his eyebrows and eyelashes, we might have some difficulty in recognising it as a case of alopecia areata, though in this particular instance the age of the patient and the history of the attack would preclude the possibility of its being common ringworm.

There is a very important question which you will be constantly asked, and that is as to the communicable nature of ringworm, and at what period it ceases to be contagious. Now, strictly speaking, it is so until it is quite cured; indeed, as long as scurfy spots remain, even though the hair be growing freely, it may be propagated. It is, however, far more contagious when it first appears, before any remedies have been applied, than it is while under treatment. The best remedy to prevent its spreading amongst children, when they are obliged to associate together, is the carbolised glycerine of the British Pharmacopœia, either pure or diluted with a little more glycerine; it should be well rubbed all over the scalp every morning. This acts in two ways: (1) The carbolic acid produces its usual effect on organised matter; and (2) the glycerine prevents particles of scurf from being dispersed. Of course, the chief objection to this treatment is that the smell of the carbolic acid is very disagreeable to some people; on the other hand, it is sometimes impossible to separate children entirely, and any means of preventing the propagation of the disease is valuable. In addition to this, the carbolised glycerine has a distinct curative effect.

And now as to the *treatment* of this troublesome malady. Nothing is easier to cure than tinea tonsurans of the trunk, or more difficult to deal with than the same disease when it is well established on the scalp. It is important that you should understand how the remedies in common use act. They may be conveniently divided into two classes—(1) Those which act by setting up sufficient inflammation in the skin to lead to the destruction of the disease; (2) those of a milder kind, which act simply as antagonistic to the development of the Trichophyton tonsurans. To the former class belong such remedies as acetum cantharidis and strong acetic acid; to the latter belong sulphur ointment, the white precipitate ointment, and sulphurous acid lotion. Many remedies combine, as it were, these two properties; as, for example, chrysophanic acid ointment, iodine liniment, and strong carbolised glycerine. How are you to choose between all these and many other remedies? You must be guided by circumstances, and take into consideration both the age of your patient and also the extent of the mischief. *Strong remedies are always contra-indicated in very young children*; a little tincture of iodine painted on once a day for a few days, followed by the use of the white precipitate ointment, is all that is necessary. In older children stronger treatment must be used, but even then you must be guided in your choice by the extent of the mischief. It is very unwise to make a *large* sore place on the scalp, as it will very likely give you and your patient more trouble than the ringworm itself. If, however, the disease is in an early stage, and consists of one or two small circumscribed spots, your best plan is to cut the hair short all round the spots, and apply with a brush Coster's paste, acetum cantharidis, or iodine liniment. At this stage a few applications will sometimes arrest the mischief. A single painting with pure carbolic acid is thoroughly effective, but it is a strong remedy, and gives some pain. Always bear in mind that it is very unwise to trust strong remedies to unskilled hands. When the disease extends over a large surface you must be content with using milder measures—tincture of iodine of double strength painted on every day is a good and safe mode of treatment. This may be followed up by the use of the nitrate of mercury ointment, diluted according to circumstances, or an ointment containing the red and white precipitate of mercury and sulphur, or the oleate of mercury (10 per cent.) For many years I have used in certain cases goa powder or

chrysophanic acid ointment (thirty grains to the ounce is usually strong enough), and I have found it a very effective remedy, but there are great drawbacks to its general use. First, it stains everything with which it comes in contact, and in the second place we are uncertain as to the amount of inflammation it may set up; some children bear it well, while in others it produces so much irritation, swelling, and discolouration of the skin as to alarm those who use it. It must therefore be used with caution, and patients should be warned of its properties; nevertheless, I repeat, it is a very effective remedy.

Your success in the treatment of ringworm will depend on your choosing your remedies with judgment, being guided in your choice by the circumstances of the case, and always bearing in mind that you have to steer, as it were, between setting up too much inflammation on the one hand and not using sufficiently strong means on the other. Whatever treatment, however, you adopt, you will meet with a certain number of cases that defy your best efforts, and that get well only perhaps after years of tedious care. As a rule, shaving the head is quite unnecessary, but the hair should be kept quite short. Skull-caps are best avoided, as liable to propagate the disease. With regard to epilation, which is so largely used in France as a mode of treatment, I do not find that it is often necessary; it is, however, occasionally useful. Take, for example, the case of a boy anxious to return to school, who has a patch of chronic tinea tonsurans. In this case the extraction of the diseased hairs will shorten the treatment required, and enable him to return to school cured somewhat sooner than would otherwise be possible. Lastly, most observers agree that ringworm is often associated with a generally unhealthy condition of the skin, which is badly nourished. Under these circumstances, tonics such as iron and arsenic are often useful. This is quite in accordance with the fact that many strictly local affections are influenced by general treatment.

A NOTE ON

THE ROUTINE USE OF THE HYPODERMIC SYRINGE AS AN AID TO DIAGNOSIS.

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THE employment of some instrument as an aid to the diagnosis of the nature of fluid effusions, and their distinction from solid tumours has long been a habit in surgery. The old grooved needle has now given way to more delicate hollow needles. Since the introduction of the aspirator, physicians have been led to look with far less dread upon the operation of puncturing internal organs, and those who have been most bold in its use have had least occasion to fear any evil result. I have no doubt that there are many who, like myself, are in the habit of employing the common hypodermic syringe as an everyday aid to diagnosis and guide to treatment, and they may consider any advocacy of its use a work of supererogation; but my own experience has convinced me that a very large number of physicians do not avail themselves of it, and that those who do, resort to it but rarely. For some years I have constantly and systematically employed it, more especially in the diagnosis of chest diseases; and the occasions for its aid are so frequent in my own experience that similar instances can hardly fail to occur in the practice of all. And I must say that I have never seen any ill result follow its use, whilst it has furnished invaluable information in a large number of cases.

Let me speak first of chest diseases. It is especially in cases of pleural effusion that it comes into requisition. We may have signs pointing to, but not decisively indicating, the presence of fluid, or may be in doubt whether they indicate consolidation or fluid accumulation; or, on the other hand, we may be sure there is fluid, but uncertain whether it is serous, purulent, or sanguineous. Our doubts are immediately settled by a puncture. Again, when fluid has been discovered, we may be uncertain whether there is only one effusion, which we may relieve by aspiration, or whether there are other loculated effusions which would not thus be reached. By two or three punctures in different situations, we may be able to decide this point, finding that the fluid has different characters at different positions. To give a case in point:—A patient who had long suffered from symptoms of mediastinal tumour of doubtful nature, with consolidation of the whole of one lung, but with little expectoration, suddenly began to bring up large quantities of fetid pus. The question whether this was due to an unrelieved empyema, or to purulent accumulation pent up in the lung itself and suddenly finding an exit, seemed an important one for prognosis and treatment. A puncture near the lower part of the lung withdrew perfectly clear serum; another, a little higher up, removed some fetid pus, in every respect like that expectorated, together with some air. Immediately afterwards a small quantity of bright-red blood was coughed up. These facts, taken together, were indicative that there was a loculated pleurisy, and that the second puncture had entered the lung itself, and removed from eroded lung-tissue some fetid pus, as was proved a week or two later by the autopsy. I may add that this is the only instance I can recall of an apparent ill result from such puncture, and here no real harm was done.

In very many cases both diagnosis and treatment must be determined by the nature of the fluid accumulation. Let me especially instance the very obscure and difficult class of cases in which, with but little evidence of acute illness, we find dulness with loss of respiratory sounds, and slight or no friction at the lower part of the right lung. We may and ought to be largely guided in our diagnosis by the history of the case and by the physical signs, yet how often is the conclusion erroneous if we rely upon these alone. Who has not seen cases of hydatid or abscess of the liver diagnosed as simple pleurisy? And how often are these cases complicated, either as the result of a secondary or coincident pleural inflammation, or as a sequel of perforation. Whatever be our views as to the desirability of evacuation by puncture or otherwise, there can be hardly two opinions as to the wisdom of ascertaining the actual state of affairs, that our general treatment and prognosis may be guided by it. Let me give an example from a recent case, which is one of pretty common occurrence. A gentleman, twenty-six years of age, of strongly phthisical family, and with a markedly phthisical constitution, has suffered for two months from severe cough with muco-purulent expectoration, which of late has become puriform and often blood-stained. Rather less than five months ago he had acute dysentery, followed during convalescence by right pleurisy. Physical examination shows dulness with loss of respiratory and vocal sounds in the lower third of the right axilla, and to a less marked degree at the back; very little else abnormal in the chest; no enlargement or tenderness of the liver; no history of hepatic symptoms. There is withal just that amount of flattening, prolonged expiration, &c., at both apices, which would make one suspicious of phthisis in a patient of his antecedents and history, and this suspicion is strongly confirmed by other symptoms. But for the history of dysentery, one could hardly have doubted that it was a case, such as one often sees, of latent pleurisy in a phthisical subject. But the hypodermic syringe withdraws thick, curdy pus, mixed with blood, and on comparison with the sputum the characters of the two are found to be identical. The character of the fluid together with the history leave but little doubt that the case is one of hepatic abscess which, after perforation into the pleura, is making its way through the lung. The circumstances of the case were such as to render it very important that the diagnosis should be made at once, whilst the general symptoms indicated the desirableness of speedy treatment. The course of the case subsequent to aspiration of the fluid has been strongly confirmatory of the advantages of the method pursued.

It would be easy to multiply cases in which the use of the hypodermic needle has given valuable information as to the presence or nature of pleural effusions. Further, it may be employed both as an aid to treatment or for actual treatment of such cases. In many cases in which it is decided to aspirate, or to introduce a trocar, it is very desirable to determine precisely the lowest point at which fluid readily flows, and, in the case of loculated effusions, to fix exactly the site of puncture. By no means can this be done so readily and so exactly as with the hypodermic needle. I am in the habit in all such cases of using this first, and often make three or four punctures to decide upon the most favourable spot. This having been done, we can decide exactly what sized needle or trocar to use, and how deeply it must go.

In the case of small effusions, and also in empyema in infants, we may use the hypodermic syringe alone, repeatedly removing small quantities of fluid.

In many other circumstances we may also employ this method. In the case of abscesses seated near the surface of the body, such as some hepatic abscesses, perityphilitic abscesses, and the like; and in a large number of swellings in limbs, &c., of doubtful nature, which come rather under the care of the surgeon, we may gain most valuable information. But this is not a fitting occasion for pointing out all the uses to which it may be applied.

Before summing up the points in favour of its use, let me say a word of the kind of instrument to be used, and the method of use. First of all, to fulfil all the conditions, it is essential that the needles should be fine, with a grooved and very sharp point, that they should be made of polished steel, and that they should be kept well tempered and scrupulously clean. The syringe should be rather large, made of glass, with metal fittings, and the piston always well soaked. The junction of the needle with the syringe must be thoroughly air-tight. It is essential that the operation of puncture should be as nearly as possible painless, that we may be able to tell the patient that it is less than a pin prick, and justify our statement. The needles should not be less than one and a quarter, nor as a rule more than one and three-quarter inches in length. The diameter should not, I think, exceed one millimetre. These details are not unimportant, for a very large number of common hypodermic syringes do not fulfil these indications, and I believe that they are essential if the pain is to be reduced to a minimum. Where it is desirable only to remove a moderate quantity of fluid, from one to one-and-a-half ounce (even a smaller quantity may sometimes be removed in empyema of infants with advantage), I employ a larger syringe, holding about an ounce, which is screwed on to the needle *in situ* after screwing off the small syringe.

As to the method of use, little need be said. The site of puncture having been determined upon, the ball of the left forefinger is firmly pressed into the intercostal space at the spot indicated, and the needle plunged boldly in close to the point of the nail. The pressure of the finger seems to deaden the sensibility of the skin, and the finger serves as a guide to prevent puncture of the rib. By way of preface to the patient, it is rarely necessary to say more than "Do you mind a prick?" and almost before the answer "Oh, no" is completed, the whole operation is over. Often I have been asked when I was going to begin, when I had already finished. The needle should be withdrawn rapidly, the finger being pressed against the skin close to it. Any long preface or display of instruments is to be avoided; for even a moment's apprehension may be prejudicial to a nervous patient; and the small size of the instrument is in this respect a great advantage.

I have no doubt that I shall be accused by some of a prolix narration of trivialities, or of magnifying the importance of indifferent details; whilst there will be some who consider other means of diagnosis always sufficient, and regard the routine exploration by the hypodermic syringe as a needless barbarity, to be employed only by those who belong to what a facetious friend of mine calls the "toasting-fork school."

To the first I must answer that nothing is unimportant of explanation which is frequently useful and often neglected or misunderstood. It has taken some years to convince me that so obvious and simple an aid to diagnosis needed any elucidation or enforcement; it is only because I find that it is in practice often ignored that I venture to urge its use, and to point out how it may best be applied.

But to those who object that it is needless or dangerous another answer must be given. There are some who rely upon external signs to the exclusion of other more exact methods, and who consider it a lowering of the standard of medical diagnosis to resort to such means as puncture. They prefer to rely exclusively upon the signs given by auscultation and percussion, and the position and shape of dulness, &c., as furnishing greater scope for the exercise of diagnostic acumen. On similar grounds many London physicians laughed at the stethoscope and auscultation when Laennec's methods were first used in England by Hope and others. I would be amongst the last to advocate the careless use of the hypodermic needle; in every case all other modes of physical examination ought to be first resorted to. But since diagnosis can be completed by the one, and only pushed to a certain degree by the other means, there can be no reason why both should not be employed in doubtful cases.

The possible dangers I have never known to occur. The shortness and small size of the needle, and the small suction-force employed, are a guarantee against some of the evils which may arise from the longer needles and greater force of the aspirator. With ordinary cleanliness there is no possibility of giving rise to septic infection, nor can air enter the pleura, or suppuration be set up. I do not deny that puncture of the heart or of the intestines may be serious, and some would prefer not to puncture the peritoneum, though I have repeatedly done so without any ill effects, as have many others. But only by unjustifiable ignorance or carelessness could either heart or intestine be accidentally punctured. The latter may, as we know from treatment of intestinal obstruction, be sometimes punctured without harm, though not without risk, but with the heart there is always danger. But I do not think that any harm could result from the puncture of an aneurismal sac, or of an intercostal artery or vein, with so fine a needle as I have indicated.

Palace-road, S.E.

SOME PRACTICAL REMARKS ON THE USE OF MARTIN'S BANDAGE.

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WHEN Dr. Martin, some time ago, introduced to the notice of the medical profession his india-rubber bandage, and spoke so highly of its curative effects in certain forms of surgical disease, it was decided that the Metropolitan Free Hospital should obtain a supply for the use of the patients, and in suitable cases the satisfactory results obtained amply prove the accuracy of Dr. Martin's remarks in his valuable pamphlet. Amongst the cases treated by his bandage were chronic ulcers and varicose veins of the leg, acute and chronic synovitis of the knee-joint, and chronic bursitis of the elbow-joint, and to these cases I wish to draw attention. In the case of ulcers and varicose veins the bandage was applied in the morning before rising, and taken off at night when in bed. Generally when the bandage was taken off a number of ridges of various depth were seen in the skin, the result of the upper edge of each fold of the bandage pressing upon the leg more tightly than the lower edge, but this did not appear to cause any injury, and in no case did any abrasion or excoriation of the skin occur. In a few of the cases the toes and part of the foot below the bandage became slightly swollen, but the patients never complained of pain, and as a rule expressed themselves as feeling most comfortable.

The great utility of this treatment in ulcers of the leg may be shown by the fact that in the cases quoted below the patients were unable to leave their work to lie in bed for a couple of months, and had been attending hospital, one for a space of nine months, and another for five months, without deriving any considerable benefit, but from the time of application of Martin's bandage they improved, and were cured in five weeks time.

With regard to the varicose veins, hardly enough time has elapsed to allow me to judge of the efficacy of the treatment, but in one case, where the vein had nearly burst at the ankle, the bandage seemed, by the pressure exercised, to exert a beneficial influence; for the spot had healed in a week, leaving but little soreness, and the patient seemed to be doing well. It appears to have an advantage over the elastic stocking in those cases—viz., that it may be applied as tightly or as loosely as may be deemed requisite, and that it does not lose its elasticity.

In the case of acute synovitis of the knee-joint it exercised a wonderful influence in effecting a cure in nine days, and I have no doubt would have acted just as beneficially in the subacute case of the same disease had the patient been allowed to remain under treatment. In one case of chronic bursitis of the elbow-joint the bandage did not do any good, but this I apprehend was owing to the number of millet-seed bodies found in the tumour keeping up the irritation;

for although the bandage expelled the fluid for a time, it always returned. Ultimately an incision was made into the bursa, and the contents evacuated.

CASE 1. *Ulcer of Leg.*—Arthur R——, aged fifty-four, a labourer, attending hospital as extern patient, under the care of Mr. Walsham, has been suffering from two varicose ulcers of the leg for ten months, and has been under medical treatment for nine months without deriving any great benefit. Martin's bandage was applied on Dec. 2nd, 1878, and the patient desired to take it off at night when in bed, and then dress the sore with lead lotion, and to reapply it before rising next morning. He continued his ordinary occupation during the time he wore the bandage, and was discharged cured on Jan. 13th, 1879.

CASE 2. *Ulcer on the Leg.*—A. S——, aged forty-three, has been suffering from an indolent ulcer, circular, about three-quarters of an inch in diameter, and situated on the anterior aspect of the leg, for six months, and has been under treatment for four months without gaining any great benefit. Martin's bandage was applied on December 12th, 1878, and the same instructions given as in the preceding case. She improved considerably, and was discharged cured on Jan. 16th, 1879.

In all the cases of ulcer of the leg the bandage was applied directly on the sore, except when the patient complained of pain, which was very seldom, and then a piece of wet lint was applied between the ulcer and bandage.

CASE 3. *Acute Synovitis of Knee-joint.*—E. J——, aged eighteen, a healthy-looking young woman, a nursemaid, was admitted into hospital on Nov. 28th, 1878, under the care of Mr. Walsham, suffering from acute synovitis of the right knee-joint. It appeared from her history that, a week before, she suffered great pain in the joint, which afterwards became so intense that she could not stand, so she was obliged to come to hospital. When admitted her knee was red, swollen, hot and tense, tender to the touch, and, in fact, was in that condition that leeches, poultices, &c., were recommended to be used. However, desiring to give the bandage a fair trial, she was placed in bed and the limb was carefully bandaged to about half way up the thigh, and, strange to say, the pressure on the knee did not cause any acute suffering. She complained of the leg being rather painful during the night, but notwithstanding she slept fairly. On taking off the bandage next morning the redness had to a great extent disappeared, the heat was less, and the knee, which measured the night before fourteen and a half inches in circumference, the normal size being twelve inches, had now diminished to thirteen inches, showing a decrease of one inch and a half in sixteen hours. Bandage was reapplied every morning, and properly adjusted at night to prevent slipping. The size of the knee steadily decreased until Dec. 5th, 1878, when it measured the same as its fellow on the opposite side, and the patient was discharged cured on Dec. 7th, 1878. About a month afterwards she came to hospital suffering from slight ailment, but the synovitis has never returned, and she has perfect use of her leg.

CASE 4. *Subacute Synovitis of the Knee-joint.*—Alfred H——, aged five years, an unhealthy, strumous-looking boy, was admitted into the Metropolitan Free Hospital on Feb. 20th, 1879, under the care of Mr. Walsham, suffering from the above disease. It appears that about a week before, without any definite cause, he felt great pain in the left leg, which was followed by swelling. On admission the leg was found to be flexed slightly at the knee; the knee itself was hotter than its fellow, but not at all red; it was not painful on pressure, but on attempting to straighten the leg the boy cried out lustily. The affected knee measured ten inches round, whilst the sound one measured but nine inches. Martin's bandage was applied, the leg placed on a straight back splint, and perfect rest in bed enforced. The size of the knee steadily decreased until Feb. 27th, when it measured nine inches and one-eighth. The mother having insisted on taking the child home, he was accordingly discharged.

Since sending the previous cases to THE LANCET for publication, the following case of acute synovitis of right knee-joint, treated by Martin's bandage and terminating in erysipelas and death, has occurred:—

Joseph D——, aged forty-three years, a labourer, and a healthy-looking man, was admitted into the Metropolitan Free Hospital on March 5th, 1879, under the care of Mr. Goodsall, suffering from acute synovitis of the right knee-joint. It appeared that on the same morning he was at work, when a hook struck him on the knee, and caused very acute pain in the joint. He continued at work for an hour after the accident, but, becoming very faint, he was brought to hospital. When admitted the joint was found to be hot, tense, red, swollen, and fluctuating, but without any external wound. It measured fifteen inches and a half round, whilst the left knee measured but thirteen inches.

The patient was placed in bed; Martin's bandage was applied from the foot to the middle of the thigh; a straight posterior splint was put on, and a smart purgative given internally. His temperature that night registered 103°; pulse 92.

As in the other cases, everything went well up to March 13th, when the knee-joint had decreased in size to thirteen inches and a half; but on that night he complained of a little pain in the thigh, and the next morning, on looking at the leg, it was seen that erysipelas had set in, extending from the knee to Poupart's ligament in front and over the gluteal muscles behind. Martin's bandage and the back splint were immediately discontinued, and the usual remedies for erysipelas adopted. He seemed to be doing remarkably well up to the 18th inst., when, about 12 o'clock that night, his pulse began to fail, and, sinking rapidly, he died four hours afterwards.

Unfortunately, no post-mortem could be obtained in this case, as it would have been especially interesting, there being no external wound, nor any cases of erysipelas either in the hospital or attending as extern patients.

A NOTE ON

VASO-MOTOR AND TROPHIC NEUROSES.

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WITH the advance of medical scientific knowledge we become daily more and more enlightened in regard to the causation of those vague and ill-defined forms of disease which are essentially due to some slight derangements of the nervous system. I make use here of the term "slight derangements" for the reason that they are sometimes associated with diseases which are accompanied by objective signs, and which can be readily recognised and classified under some specific heading. Let me be clearly understood. I do not wish it to be inferred from the above remark that I do not include under the heading of this communication those diseases which are known to us by the indefinite nomenclature which, from custom, we are compelled to adopt; such diseases, for instance, as diabetes, asthma, epilepsy, angina pectoris, and the, above all, vague and indefinite disease termed hysteria. I admit, however, that I should be extremely sorry to put forward any hypercritical remarks or suggestions relative to subjects concerning which, even at the present time, so little is known from a purely scientific point of view. Yet, on the other hand, pathology and clinical observation, with strict attention to the supreme laws of biology, are now accomplishing something like exactitude of definition and of truth.

Under the head of nervous disorders, embracing as the term essentially does not only our objective material and volitional parts, but also the correlation of these with subjective as well as mental morbid processes, we have a field for study and reflection, and a field in which the mind of man at present has made but little progress. The nervous system forms a chain of phenomena by which are linked together all the parts of our conscious and unconscious being, and it is impossible to say how far and by what means these parts are intimately associated.

We commonly speak in a ready and, I may say, off-hand way, of cerebro-spinal, sympathetic, vaso-constrictor, vaso-dilator, and trophic nerves, and we may, perhaps, in general not sufficiently appreciate medical scientific investigations, or hold in their due estimation medical scientific investigators. Yet, for medicine as an art, or rather a science, and for the bringing us into practical relationship with the causation of some of those obscure symptoms

which up to this time were mysteries, and also obstacles to the development of scientific and clinical accuracy, we are undoubtedly most highly indebted to the investigations of such distinguished investigators as Marshall Hall, Jones, Laycock, Ferrier, Ogle, Jackson, Broadbent, Crichton-Browne, and Althaus, amongst our own countrymen, as well as to a host of distinguished investigators, our co-workers on the Continent. Amongst the latter we must not forget the name of Pourfour du Petit,[1] who in the year 1727 was the first to show that the sympathetic exercised considerable control over the movements of the pupil of the eye. Above all these, however, there are a few names which stand out in bold relief, and which mark an era in this field of scientific inquiry. I refer to the great names and the great labours of those most eminent and skilled physiologists—viz., Budge, Valentin, Claude Bernard, Du Bois Reymond, Brown-Séquard, Remak, Schiff, Volkmann, Vulpian, Ludwig, Thierry, Traube, Henle, Vogel, and Holst. There are numerous other distinguished names which we must necessarily leave here unnoticed.

It is to be most fervently hoped that the important progress which science has undoubtedly made will not lead us into a purely materialistic train of thought, and induce us to conclude that the laws which govern our being are, or ought to be, within the grasp of man's comprehension and understanding. The truly educated mind will, I am quite sure, never make such a concession, but will receive and carefully weigh the various doctrines which are propounded as the fruit of careful and patient inquiry, and which has to be well digested before its true quality can be ascertained. This remark, I think, is in every sense of the word more appropriate and applicable, in reference to the nervous system, than it is in reference to the labours of any other branch of our profession.[2]

Our greatest living neuro-physiologist and pathologist, Dr. Brown-Séquard, has endeavoured (in THE LANCET of Jan. 1876) to make the profession believe, amongst other things, that the cross action of the cerebral hemispheres is erroneous, and that a cerebral hemisphere controls the movements of the body on its own side. Such a doctrine as this, I scarcely need say, has not been admitted by physicians of this country or of the continent. Differences of opinion, again, exist in regard to the spinal cord, which I must, however, pass over. Now, if our knowledge of such subjects be associated with discordant views given by men who have devoted their lives to solving these problems, can we be at all surprised that they are problems still? And need we therefore wonder if we find a vast variety of doctrines constantly brought before us in reference to that most difficult task of human conception—namely, the intimate study of those nerves which govern function? This matter of nerves I shall now endeavour to bring practically before the reader.

In the Astley Cooper essay, "On the Sympathetic System of Nerves," by Eulenburg and Guttmann (1879), we find a most elaborate investigation of not only their own work, but also of that of others, into the facts connected with this most interesting although complicated subject. Biffi,[3] in 1846, found that division of the cervical sympathetic in rabbits and dogs produced *contraction* of the pupil of the eye, while irritation of the peripheral end of the divided nerve produced *dilatation*. Petit mentions among the results of division of the sympathetic nerve a reddening of the conjunctivæ; but the conclusive evidence on this subject we owe to Claude Bernard.[4] Division of the cervical sympathetic produces, as Claude Bernard has shown, a dilatation of the vessels of the head and neck on the side operated on, and also a considerable elevation of temperature. On the other hand, electrical irritation of the peripheral end of the divided sympathetic causes the previously dilated vessels of the head and neck to contract, and lowers the temperature even to below the normal.

Eulenburg and Guttmann[5] state that "certain well-known investigations have placed it beyond doubt that the vaso-motor centrum for most parts of the body is in the medulla oblongata, and further, that not only have Budge's former experiments proved the influence of the pedunculus cerebri in the vessels of the opposite half of the body, but by us also there have been defined certain localisable vaso-motor districts on the surface of the brain in dogs, and in the upper part of the cortical substance of the brain." Although some physiologists are inclined to doubt that vaso-motor centres do exist higher in the cerebral mass than in the medulla oblongata, still, from clinical observation, when this part of the brain has been so diseased as to almost negative its function, in this respect I have been led to the conclusion which bears out Eulenburg's experiments—namely, that there exist in man, as in dogs, vaso-motor as well as nutritive centres in the cortical substance of the brain. The effect of mental emotions, which originate in the hemispheres of the brain, and manifested by extreme pallor or redness of the surface, affords, to my mind, conclusive evidence upon this point.

Of late years, and especially since the experiments of Goltz[6] upon the sciatic nerve and the lumbar part of the spinal marrow of dogs, it has generally been conceded by physiologists that there are two kinds of nerve-fibres which govern the movements of vessels, the one dilating and the other contracting them. It is, no doubt, by the due correlative action of these nerves that the tone of the vessels and the nutrition of parts are maintained. It is singularly interesting to observe with what wonderful uniformity and regularity this controlling power is exercised in perfect health, and how readily it is impaired by an infinite variety of exciting causes, particularly in certain persons who are the subjects of nervous derangements. The reflex and inhibitory processes connected with the sympathetic and vaso-motor system of nerves, are, fortunately for our comfort, dissociated from our conscious sensorial being—that is, when there exists throughout the body that normal condition which we call health.

I shall farther on draw attention more especially to these reflex conditions, when I come to notice particular nervous affections; but here I would say something in reference to those nerves which are said to exist and to possess an especial power over the nutrition of parts, and hence are termed trophic. These nerves have never, up to the present time, been made evident to us by dissection, and, moreover, there are some physiologists who doubt their existence; yet still, by inference, I think that there can be little question that such nerves have an existence, and not only so, but that they play a part in pathological changes, of which we have as yet only the most indefinite conception.

We know, without a shadow of doubt, that nerves which control the circulation and nutrition are as universal as the blood itself; that they form a complete network of ramifications; and that messages are being constantly transmitted through them from less important to more important centres, and from these again to the higher centres, which are in direct relationship and continuity with the highest centres of all—namely, the brain and spinal cord. As long as there is a constant and rhythmical interchange of force between these several centres, so that the most perfect integrity exists, so long do we get complete and perfect function—in other words, health. This remark has reference to mental as well as to bodily functions, to volitional as well as to mere automatic ones, and it is therefore only rational to infer, what our daily experience constantly demonstrates to us, that the wear and tear of advanced civilisation, with its associated evils, have a specific influence in undermining—that is, in other words, in devitalising, deranging, and ultimately destroying—the correlationship between mental, bodily, volitional, and automatic nerve processes, and that the result is premature death.

We have no better established fact in the whole range of neuro-pathology than that there are disorders of the nutrition of distant parts of the body which result from destruction of brain-tissue by vascular changes; and that these take a direct course in conformity with the histological direction of the nerves implicated no one can doubt, and deaths arising from this cause occur more frequently than those which are said to be due to the primary seat of disease in the brain or spinal cord. By way of example, I will instance bedsores, and the rapid destruction of the mucous surface of the bladder and urinary tract, and, also, those consecutive lesions of nutrition which, as M. Charcot has

[1] Mém. de l'Acad. des Sciences, 1727, p. 1.

[2] The functions of the different parts of the brain and of the columns of the spinal cord afford us an especial example of the truth of my assertion.

[3] Intorno all' influenza che hanno sull' occhio i duo Nervi grande Simpatico e Vago. Diss. Inaug. Paris, 1846.

[4] Bernard: Comptes Rendus, tom. xxiv., p. 472; Gaz. Méd. de Paris, 1862, pp. 78, 258; Recherches Expérimentelles sur le grand Sympatique, Paris, 1854.

[5] On the Sympathetic System of Nerves, 1879.

[6] Ueber Geffasser-weiternde Nerven. Pflüger's Archiv der Gesammten Physiologie, Bd. ix., p. 174.

pointed out,[7] may sometimes deceive the physician, who may mistake them for the disease itself. Such, again, are certain forms of progressive muscular atrophy, which were formerly regarded as primary affections of the muscles themselves, but whose origin really lies in certain morbid alterations of the great motor cells of the anterior cornua, or grey matter of the spinal cord. M. Charcot says that "the power of producing, under certain morbid conditions, lesions of nutrition in the peripheral parts of the body, or in the viscera, is not an attribute of the brain or spinal cord alone. These centres share the privilege with the nerves which radiate from them, and it is to be observed that the consecutive affections which are produced by protopathic lesions, and developed in the most widely different regions of the nervous system, present most remarkable analogies in spite of some specific differences. Hence, when the physician's attention has been directed to such affections, it is often a matter of extreme difficulty to determine what portion of the nervous system was originally affected, and what is the true cause of the trophical lesion."

(To be concluded.)

TWELVE CASES IN WHICH DILATATION OF THE CERVIX UTERI WAS ACCOMPLISHED BY CONTINUOUS ELASTIC PRESSURE.

BY LAWSON TAIT, F.R.C.S.,
SURGEON TO THE BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN.

I HAVE had such unsatisfactory results with all kinds of tents in dilating the cervix uteri that I have long desired to get something which would accomplish this more safely, more speedily, and with less pain. Having been struck with the ease with which an inverted uterus can be returned by continuous elastic pressure, I applied this method for the purpose of dilating the cervix; and my results have been so completely satisfactory that I hasten to narrate my experience of the first twelve cases in which I have used it.

CASE 1.—E. W——, aged twenty-seven, had a miscarriage in December, and has been losing more or less ever since. Cervix closed; fundus large. No. 2 dilator was applied at 6 P.M.; No. 3 at 10 P.M.; and next morning at 9.30 I could introduce my finger easily, and removed what seemed to be the whole of a placenta of about the third month.

CASE 2.—Mrs. H——, aged thirty-eight. Fundus large; cervix small; profuse menorrhagia. Clearly a case of multiple myoma. A trial of No. 1 dilator resulted in partial dilatation after six hours' application. Twelve hours' application of No. 2 produced no effect. I therefore notched the cervix on each side to the depth of a quarter of an inch, and directed the house-surgeon to insert No. 2 once a day for a few minutes. On the third day I applied No. 3 at 7 P.M.; at 10 P.M. No. 4 was placed by the house-surgeon; and at 9 next morning the whole canal was so fully dilated that the finger could reach the fundus.

CASE 3.—E. H——, aged twenty-eight. Fundus large and completely retroflexed; profuse menorrhagia. The retroflexion made it at first impossible to use the dilators, and I therefore divided the cervix freely on each side by the hysterotome, and placed one of Marion Sims' cleft stems in the cavity. This was worn for about a fortnight. Dilatation was begun about 3 P.M. by No. 3; this was replaced by No. 4 about 10 P.M.; and at 10 next morning the canal was fully dilated, so that I could discover and open the capsule of a small myoma in the fundus, which was afterwards expelled by the uterine contractions.

CASE 4.—Mrs. F——, aged thirty-nine. Profuse metrorrhagia, probably from retained fragments of a placenta belonging to a miscarriage which occurred seven months ago. No. 2 dilator was applied at 5 P.M.; No. 3 by the house-surgeon at 10 P.M.; and when I visited the hospital next day about 6 P.M. the canal was fully dilated, and I removed the placental débris.

CASE 5.—Mrs. W——, aged thirty-eight, had a miscarriage six weeks ago, and has been losing ever since. Fundus large and cervix closed. Applied No. 2 dilator at 11 A.M.; No. 3 at 7 P.M.; and at 11 P.M. removed a small placenta.

[7] On Diseases of the Nervous System, p. 6.

CASE 6.—E. H—— has suffered from a continual discharge with severe menorrhagia for more than a year. The apex of a polypus can be discovered presenting through the os. I applied No. 3 dilator at 10 P.M.; and next morning about 9.30 removed a long narrow polypus, the pedicle of which was close to the fundus.

CASE 7.—Mrs. S——, aged forty-six, has never been pregnant; suffers from continual discharge and irregular floodings. Fundus slightly enlarged; cervix partly open. Applied No. 3 at 7 P.M.; and next morning at 8 could introduce my finger the whole length of the canal. It proved to be a case of endometric epithelioma.

CASE 8.—Miss F. H——, aged thirty-four, has suffered from metrorrhagia for two years. Has a myoma in the posterior wall. Thinking it might be possible to enucleate it, I applied the dilators. In this case also it was necessary to notch the cervix before they effected their purpose; but after this was done, twelve hours' pressure with Nos. 2 and 3 enabled me to discover that the tumour could not be removed by the cervix.

CASE 9.—Mrs. W——, aged thirty-seven, has very profuse periods. The fundus is large and retroflexed; the cervix closed. By fifteen hours' pressure with Nos. 2 and 3 I was enabled to introduce my finger, and discovered that it was merely a case of subinvolution. She has now passed two periods since the dilatation with very much less loss, and the retroflexion is practically cured.

CASE 10.—Mrs. H——, aged twenty-seven, has been losing continuously since her confinement four months ago, and her condition has resisted all therapeutic measures. Twenty hours' dilatation with Nos. 1, 2, and 3 enabled me to remove a small fragment of placenta, not larger than a bean, and since then (nearly a month) there has been no loss at all.

CASE 11.—Mrs. M——, aged thirty-two, believes she is pregnant about the fourth month, but for six weeks has been losing almost daily. Fundus as large as if she were three months pregnant; cervix slightly open. Eight hours' dilatation with Nos. 3 and 4 enabled me to empty the uterus of an ovum, the placenta of which was situated just within the cervix in the posterior wall of the uterus.

CASE 12.—Mrs. H——, aged thirty-seven, has been losing at very frequent intervals for seven months, and is never free from an offensive watery discharge. The fundus is large and extremely anteflexed; the cervix quite closed. Eighteen hours' pressure with Nos. 2 and 3 enabled me to remove a rotten fœtus and placenta, of probably the third month. This ovum must have been retained in the uterus for at least four months after its death, for the last normal period was in December, and I removed the ovum on the 1st of August.

Besides these cases I may refer to a case of retained fœtus removed by my colleague, Dr. Savage, after twenty hours' dilatation with Nos. 1, 2, 3, and 4; and, since the above was written, the dilators have been used by myself and my friends in more than twelve other cases with uniform success.

In all of these cases the results were perfectly satisfactory. The advantages of the plan are that it is absolutely free from smell and septic risks, in these matters contrasting most favourably with the use of sponge tents. It is also almost free from pain, and here it has a most incontestable advantage over the use of sea-tangle tents. It is likewise superior to either of these methods of dilating the cervix in that the plugs, being of vulcanite, can be used indefinitely, and that therefore their use is far less costly. I may also say that I have never obtained from sponge, tangle, or tupelo tent the complete dilatation of the whole canal which these plugs produce.

The dilators are best arranged in a set of four sizes made to screw on to a common stem. They are sold to any pattern by Messrs. Mappin and Co., New-street, Birmingham. The only precaution necessary in their employment is to use extremely gentle pressure. I have had a bent stem made for exceptional cases of flexion, but in the great majority of instances the straight stem answers every purpose.

Birmingham.

SCHOLARSHIPS.—At the London Hospital Medical College Mr. Adolphus J. Richardson, B.A., has obtained the Entrance Science Scholarship of £60, and Mr. T. Ozzard that of £40; and Messrs. George A. L. Bowling and Stephen F. Smith have obtained the Buxton Scholarships, value £30 and £20 respectively.

A CASE OF

PYÆMIC ABSCESS OF THE LIVER,

SECONDARY TO AN ULCER OF THE CÆCAL APPENDIX, RESULTING FROM IMPACTION OF A PIN.

BY HENRY ASHBY, M.D. LOND.,

PHYSICIAN TO THE GENERAL HOSPITAL FOR SICK CHILDREN, MANCHESTER.

J. B——, aged eight years, was admitted into hospital March 8th, 1879, with the following history. Last November she had an attack of inflammation of the lungs of some weeks' duration, followed by weakness, cough, and loss of appetite. Five weeks ago she noticed decided loss of power in her legs, though they had been getting weak for some time, and now she cannot stand. Has been feverish lately at night.

On admission the patient was a thin wasted girl, with both legs drawn up as she lay in bed, knees and hips being semiflexed and toes pointed, muscles contracted, wasted, and irritable. The limbs could be almost straightened by force, but it gave great pain; no loss of sensation, but legs jerked up on tickling the soles. Physical signs in chest normal, except weak breathing at right base behind and slight dulness. Temperature 99°. No tenderness or enlargement of liver and spleen.

March 12th.—Temperature 103·8° in the evening; frontal headache; no altered physical signs.

15th.—Temperature: Morning, 102·4°; evening, 105°. Abdomen tender; complains of pain in right side; dulness at base of right lung behind; tongue coated and white; no marked enlargement of liver.

17th.—Temperature: Morning, 101·4°; evening, 103·6°. Abdomen distended and tender; muscles contracted and hard; veins enlarged; cries with pain when lower ribs and abdomen are percussed; dulness extends some three fingers' breadth below the ensiform cartilage, and one finger's breadth below the ribs in the right mammary line; some bronchial breathing at right base behind.

18th.—Temperature: Morning, 101°; evening, 102·6°. Dulness over region of liver extends downwards to within one inch of umbilicus; whole abdomen distended, tense, shiny, and very tender; superficial veins much enlarged, with current of blood passing upwards; dulness behind at base of lung more marked and extensive.

Patient remained in much the same condition, but becoming weaker and thinner till her death on the 26th. A day or two before death her legs became œdematous.

Necropsy.—Body emaciated. Legs drawn up, fixed, and œdematous. Abdomen distended; veins well marked. On opening the abdomen a clear serous fluid escaped in considerable quantity. Liver much enlarged (weight 4 lb. 13 oz.), soft, and of a red-purple colour; glands in fissure enlarged. On section, there was a large irregular cavity occupying the posterior and upper part of the right lobe, filled with thick yellow pus. The lobus Spigelii was completely occupied by another abscess communicating with the former, and had evidently compressed the inferior vena cava. The left lobe contained another abscess, also communicating with its fellows. The abscess walls were extremely irregular, and the cavities occupied by a sponge-like network resembling some tubercular cavities in the lungs; apparently the vascular elements had survived the cellular and given the spongy appearance. The liver substance was compressed, and the rest of the liver was intensely congested. Spleen enlarged and congested.—Intestines: Cæcal appendix contained a pin, the surface of which was encrusted with phosphates, and its point had passed through the walls into the peritoneum. Near this spot was a ragged ulcer, with its base adherent to the parts around.—Heart: Evidence of recent endocarditis; edges of mitral valve thickened and beaded. Base of right lung semi-solid; irregular scarring on the surface; cheesy patches near the surface, surrounded by fibroid tissue. Brain and cord normal to the naked eye.

Microscopical examination of the liver in the neighbourhood of the abscess showed liver-cells arranged in rows, with fibroid tissue between, evidently the result of compression. Nearer the abscess cavity the liver-cells had disappeared, there being only leucocytes, fibroid tissue, and abundant crystals of tyrosine. The microscope failed to reveal any change in the lateral columns or other parts of the cord.

Remarks.—This case presents three different points of interest: 1. Evidence of a chronic pneumonia, which had become cheesy, and was finally cured. 2. A paraplegia with contracted hamstrings and gastrocnemii of six or eight weeks' standing, with no lesion in the cord. 3. A large *single* pyæmic abscess of the liver, following an ulcer in the cæcal appendix.

The principal interest of the case is concentrated on the latter. No history of swallowing a pin could be obtained from the parents; but, from the thick coating of lime salts around it, it was evident it had been stuck in the cæcal appendage for some time. The ulcer also, from the appearance of its edges, and from being coloured by the rust of the pin, was probably of some standing; on the other hand, it can be stated positively that the abscess in the liver was of about three weeks' duration. It had evidently begun, as pyæmic abscesses nearly always begin, in several different centres, which had finally joined together to form one large abscess. This case shows how closely a pyæmic may resemble a tropical abscess. Indeed, Dr. Moxon has suggested that tropical abscesses may originate exactly as the abscess in this case, and that they are of a pyæmic nature—a chronic dysenteric ulcer giving rise to multiple abscesses of the liver, which open into one another. Certainly this case offers strong confirmatory evidence in support of such a view. There was no evidence of pyæmia elsewhere, except the endocarditis.

The diagnosis was difficult. It was evident that there was suppuration, or a purulent peritonitis, in the neighbourhood of the liver; but it was not quite clear what was the cause of obstruction to the inferior vena cava if the abscess were hepatic, and the old history of pneumonia and the present paraplegia were puzzling. The autopsy showed clearly that the obstruction to the inferior vena cava was due to the enlarged, abscess-containing lobus Spigelii.

Manchester.

ELEPHANTIASIS OF LEG; LIGATURE OF FEMORAL ARTERY.

BY H. HAMILTON, M.D.,

BENGAL MEDICAL SERVICE.

ON the 19th September, 1878, a man was carried by his friends in a mat-constructed cot from the neighbourhood of Kandahar to the Civil Dispensary here. He was found to be suffering from very extensive elephantiasis of the right leg. There was an immense discharge of dirty, unhealthy pus from several marks of cautery made by native hakims, and from deep burrowing sinuses. One especially large sinus existed almost immediately behind the knee-joint, but was found, on examination, to be confined to the soft tissues. The knee-joint was anchylosed from a tulwar cut inflicted some time before the leg began to enlarge. By this cut the patella had been severed, the upper fragment projecting. This was considered by the man himself as the cause of the enlargement, and it is curious that it should have occurred immediately before. The whole limb was nodulated, and presented a repulsive appearance from its size and the filthy discharges. It was ordered to be well cleaned, and carbolic dressings applied. The swelling was pretty nearly confined to the leg; only the lower third of the thigh was affected to a slight extent.

It was difficult to get any history of the case out of the patient. It seemed to have begun about a year ago, and, as before stated, was preceded by a tulwar cut across the knee-joint.

Sept. 26th.—No improvement. The man is most importunate in his entreaties to be cured. Ordered the native doctor, Kasim Ali, to lay before him that there was only one method from which any chance of cure could be expected, and, as there was some danger attending it, he himself would have to share the responsibility. He expressed himself quite willing to do so, and accordingly directions were given to have the leg measured, and the man got ready for operation next morning.

27th.—Assisted by my friend, Dr. M'Kay, the man was put under chloroform, and I proceeded to ligature the

femoral artery. No difficulty was experienced in finding the artery. The superficial fatty tissue seemed thickened. The artery itself was not enlarged, nor its coats thickened. As carbolised catgut was not procurable, a stout silk ligature was used. Having adjusted the wound in the usual way, the limb was thickly covered with cotton-wool kept in place by a flannel roller and placed on a pillow. Ordered two grains of opium.

28th.—Limb of natural heat. Dressed in the morning by the native doctor before my visit.

29th.—On opening the dressings to-day the change in the size of the limb seemed quite remarkable. The patient himself, a very stupid sort of man, noticed it at once. Unfortunately the leg had not been measured as directed, partly on account of the native doctor not having a measuring-tape, and partly through my own carelessness, not having expected such decided results. The following are the measurements to-day—Instep 11¼ in., ankle 10⅞ in., calf 19 in., knee 16¼ in. Some slight discharge from seat of ligature; discharge from sinuses profuse. Some pain.

Oct. 1st.—Improvement continues. Instep same as that of other limb. Ankle 10¼ in., calf 18 in. Wound somewhat painful, and considerable discharge from it.

3rd.—Discharge from sinuses continues. Wound looking healthy; discharge less. No pain. Measurements—Ankle 10 in., calf 17½ in., knee 15⅝ in.

4th.—Wound looking very healthy, almost filled up; great discharge of sanious pus from large posterior sinus. Measurements: ankle 9½ in.; calf 17⅜ in.; knee 15½ in.

6th.—Did not see patient yesterday. Native doctor reports he had a sharp attack of fever. None to-day up to time of visit, but pulse is rather full; wound healthy.

7th.—Continues well. Ankle 9⅜ in.; calf 17⅜ in.; knee 15½ in.

11th.—Ligature came away to-day.

14th.—Discharge from sinuses continues very profuse; injected them with carbolic lotion several times; first and finally with tinct. benzoin co. Patient to-day has got a sharp attack of dysentery, for which ordered ipecacuanha. Ankle 9⅜ in.; calf 17 in.; wound nearly healed.

19th.—Dysentery better. Discharge from sinuses continues, but is less since use of tinct. benzoin co. Wound healed except at one point, from which there is a good deal of discharge. Cautery marks quite healed. Ankle 9⅜ in.; calf 16½ in.; knee 14⅞ in.

24th.—Discharge from old sinuses less. A new one has formed to-day. Still some diarrhœa remaining from dysentery. Ankle 9 in.; calf 16⅜ in.; knee 14½ in.

28th.—Diarrhœa stopped. Old sinuses dried up; discharge from new ones less. Calf 15¾ in.; ankle and knee as before.

Nov. 3rd.—A new sinus has formed to-day, from which there is some discharge. All others quite healed. Calf 15 in.; knee 14 in.

10th.—Since last record there has been some discharge again from sinuses, also slight discharge from seat of ligature at one point, which is quite superficial. Calf, 14½ in.

14th.—Still some discharge from sinuses. Wound made at seat of ligature quite healed. Some ulceration over projecting fragment of patella. Did not measure.

20th.—Since last record, patient has been getting on well. Did not measure to-day, as I was engaged in giving over charge of the dispensary to Surgeon-Major Thomson.

30th.—Rode over to the dispensary to-day, intending to measure the leg carefully, and compare it with the other, but found to my regret that the man had left the night before. He was able to ride on a bullock, but had not attempted to walk. The native doctor informed me that the leg was looking extremely well, and had further decreased in size. All the sinuses had quite healed up, and there was no discharge whatever.

I consider this case very satisfactory. Judging from the appearance of the leg on the third morning after the operation, when it measured 19 in. round the calf, I think the original measurement must have been 21 in. The last record was 14½ in., but, as it was going down rapidly at that time, and was so reported by the native doctor, it was probably little over 13 in. when the man left. The other calf was about 12½ in. The ankle and instep were alike on both sides. The lower third of the thigh was somewhat less than the sound one, on account of the great discharge. The man had not been encouraged to attempt to walk; I have no doubt he could have done so when he left.

Quetta, Beloochistan.

A CASE OF

COMPOUND DISLOCATION OF THE SECOND PHALANX OF THE THUMB.

BY WM. H. BULL, L.R.C.P.L., M.R.C.S. Eng.,
MEDICAL OFFICER TO ST. PAUL'S COLLEGE, ETC.

AS this case presents a certain amount of interest, I venture to publish the following notes:—

Mr. C. E. C——, aged eighteen, one of our senior prefects in college, while playing football on March 6th, 1879, tried to pick up the ball as it came out of the scrimmage, when a powerful opponent, by missing the ball, kicked him with full force on the left thumb. The accident was seen within twenty minutes after it happened, when it was found that the second phalanx of the left thumb was bent *directly* backwards, forming a right angle with the rest of the thumb. On the anterior surface the *entire* articular extremity of the second phalanx was projecting through a large >-shaped lacerated wound. The bleeding was free, and the pain great.

The dislocation was reduced without the slightest trouble, the parts freely washed, and a piece of lint soaked in his own blood covered the whole wound. A splint was applied, and the limb kept perfectly quiet in a sling. He was soon quite free from pain, and at night slept well. On the fourth day (March 10th) the parts were examined, but as the lint was so adherent to the skin it was left undisturbed, and the splint reapplied. On the twelfth day (March 16th) a very little healthy pus, mixed with a little blood, was found; it was quite free from odour. The wound looked very healthy; the lower half was entirely healed, and the pus came from the upper part, which was rather jagged-looking. This was washed and dressed daily with carbolic lotion; and by April 7th the wound had almost entirely healed, there being only a few granulations about the size of three pins' heads. Altogether he was able to flex and extend the joint slightly without pain. In this state he went home for the Easter vacation.

On returning to college the following term only the cicatrix was to be seen. He was able to flex and extend the joint perfectly, and did not experience the slightest inconvenience.

Stony Stratford, Bucks.

A Mirror OF HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

CASES OF LITHOTOMY.

(Under the care of Mr. SYDNEY JONES.)

CASE 1. *Oxalate calculus; lateral lithotomy; recovery; subsequent passage of small renal calculi.*—J. R——, a gardener, aged twenty, admitted on Sept. 27th, 1878, stated that five years before he was first troubled with gravel and frequent micturition, together with passing of blood. From this attack he apparently recovered, and suffered comparatively little until about five weeks before admission, when he again passed blood and was sent into hospital.

On admission he complained of scalding, referred to the prostatic part of the urethra, when he passed water, and of a peculiar trembling all over the body after passing it. Micturition was much more frequent during the day than at night. The urine contained a small quantity of albumen with pus and phosphates. By sounding Mr. Sydney Jones detected a stone, which was estimated to be over an inch in diameter. The stone was diagnosed to be a mulberry one, from the uneven character of the surface as the sound was drawn over it.

On the 2nd of October lateral lithotomy was performed by Mr. Sydney Jones, under the influence of ether. A curved staff with lateral groove was used. The bladder was cut into and the stone extracted without difficulty. The calculus measured about one inch and a half by an inch; it was very tuberculated, generally white on the surface from the coating of phosphates, but in some places there cropped up the prominent black tubercles of oxalate. There was but little bleeding. The bladder was washed out with tepid water, and a tube *en chemise* was retained for twenty-four hours.

He passed water by the urethra and by the wound. At first the urine contained some small clots. Pulse and temperature remained normal. On the afternoon of Oct. 4th Mr. Sydney Jones, thinking the exterior wound to be healing too rapidly, passed his finger, and broke down the uniting material. On Oct. 6th, four days after the operation, the patient passed about one ounce of clot, bleeding having been determined by priapism occurring during sleep. Afterwards he went on uninterruptedly well. On the ninth day most of the urine passed by the urethra, and less through the wound. On the sixteenth day all the urine passed by the urethra. On the twenty-second day after the operation the man was allowed to get up, and in a few days afterwards left the hospital well.

About one month later, after an attack of renal colic extending from the left loin along the inguinal region to the inner side of the left thigh, he passed three or four small stones, one rather larger than a pea. Since then he has kept quite well.

CASE 2. *Uric-acid calculus; lateral lithotomy; recovery.*—J. E——, aged twenty-three, was first seen on March 19th, 1879. He had had difficulty in passing water for about six or seven months; had never passed blood, but in the daytime he had to micturate very frequently, and whilst doing so he suffered much pain in the end of the penis; there was always an aching about the bladder and penis; there was no irritability at night-time; the urine had a considerable ropy sediment. The introduction of the sound gave much inconvenience, the bladder being extremely sensitive, and it was found necessary to sound him under the influence of chloroform. There was then detected the sharp ring of a lithic-acid calculus, the size of which was recognised as about an inch in its long diameter. The extreme nervousness and sensitiveness of the patient made lithotomy seem preferable to lithotrity, and the patient's own wishes led him to select the former operation.

On April 25th lateral lithotomy was done, a curved staff with lateral groove being used, and held firmly under the pubes. Ether was employed (as is usual in Mr. Jones's practice, except in young children and old people, when chloroform is given). No difficulty occurred in this operation, and the hæmorrhage was slight. The stone was smooth, of lithic-acid formation, and about one inch by half an inch in measurement.

Recovery progressed without any untoward symptoms. The temperature never rose above 100°; there was no sickness; no pain at any time complained of. As is generally the case, from twenty-four to forty-eight hours after the operation urine passed in some quantity per urethram, and then resumed its course by the wound. About the tenth day the quantity again increased from the penis, and continued to do so, the amount from the wound becoming gradually less.

On the 15th of May, twenty days after the operation, he got up for the first time, and the wound was quite soundly healed a few days afterwards.

CASE 3. *A mixed uric-acid and oxalate-of-lime calculus; lateral lithotomy; recovery.*—T. G. S——, aged ten years, was admitted on June 6th, 1879. Fifteen months previously he had evidently suffered from difficulty in passing water, for then he was circumcised—probably from the idea that an elongated prepuce was the cause of his symptoms. His symptoms, at all events, could be dated back to this time. He had very frequent micturition—in fact, almost incontinence; his pain was excessive, causing him to call out and drag most forcibly on the penis. There was some prolapse of bowel, and inability, from straining, to retain his fæces. There was a copious deposit of pus in his urine. He complained of much aching in his back; but there was no more albumen in the urine than could be accounted for by the amount of pus which was present. The sound detected a pretty large calculus, judged to be about an inch in its long diameter. The boy evidently suffered much; and it was determined to get rid of the stone without delay. This was done on June 11th, by the ordinary lateral operation preferred in grave cases. The stone was rapidly extracted—as timed by a bystander, in three-quarters of a minute. Two bleeding points were secured by artery forceps, which were left hanging in the wound, and removed in a few hours. The bladder was washed out with tepid water; the patient was removed to bed; and fomentations were applied. The stone was about an inch and a half by one inch, and was made up of lithic acid and oxalates, coated with phosphates. A few small clots were passed for a day or two after the operation, otherwise he went on uninterruptedly well. For a few days after operation the boy had some sweating, but the pulse and temperature were hardly affected. On June 21st urine began to pass in quantity through the penis; more and more passed in this direction, and less through the wound. In a few days later he went into the country. On July 14th he was well, although his pale condition and a certain irritability of the cicatrix rendered it desirable to keep him a while longer under supervision.

WORCESTER INFIRMARY.

WOUND OF THE RIGHT INTERNAL JUGULAR VEIN WITH A FRAGMENT OF GLASS FROM AN EXPLODED LEMONADE-BOTTLE; COPIOUS HÆMORRHAGE; LIGATURE; PERSISTENT CONTRACTION OF RIGHT PUPIL; REMARKS.

(Under the care of Mr. THOMAS W. WALSH.)

THE happy recovery from such a dangerous injury as here recorded is matter of congratulation alike for surgeon and patient.

Thomas P——, aged fourteen, was admitted on July 29th, 1878. He was employed in a soda-water manufactory, and while in the act of stooping to pick up some bottles, a man in passing dropped a bottle of lemonade, which burst, and one of the fragments struck the boy on the right side of the neck, causing a wound about two inches in length, beginning about an inch above the clavicle, close to the trachea, and passing obliquely upwards and outwards across the anterior edge of the sterno-mastoid muscle. The man picked the boy up, and, with great presence of mind, pressed firmly on the wound, holding as well as he could the edges together, and ran down to the infirmary with him.

When first seen the boy was not at all collapsed, though he had lost a considerable quantity of blood. Directly pressure was removed by the man withdrawing his hand, the blood, venous in character, gushed out in a large and continuous stream, though, not being able to see any bleeding-point, the house-surgeon *pro tempore*, Mr. Wilson, endeavoured with a pair of artery torsion forceps to catch hold of the divided ends of the vein (for it was clear the bleeding proceeded from the internal jugular vein), but after trying some time without success, and the boy getting faint from the excessive loss of blood, he seized hold of the edges of the wound and held them firmly together, thus effectually controlling the hæmorrhage, and sent for Mr. Walsh. On the arrival of this gentleman the boy had somewhat rallied. The clot which had formed was removed, and the blood welled up most alarmingly. An attempt was made to control the bleeding by pressure above and below in order that search might be made for the bleeding ends, but the wound in the vein was so near the innominate that no pressure below controlled the bleeding in the slightest degree. The boy was then placed under chloroform, the wound enlarged, and then, after several ineffectual efforts to seize the bleeding ends, Mr. Walsh pressed with his left forefinger behind the posterior edge of the sterno-mastoid muscle, and thus, as it were, exerted pressure from behind, and in some measure moderated the bleeding, which chiefly came from the lower or cardiac cut-end of the vein. He then fortunately seized both ends, and included them in one ligature. It was not, however, quite clear what had been included in the ligature, whether the descendens noni nerve, or even the par vagum, the chief aim being to save the boy from immediate death by bleeding, and any attempt at dissection was out of the question. The hæmorrhage now ceased, and the wound was united by sutures and dressed in the usual way. He was put to bed with hot bottles to his feet, and in a short

time he drank a little milk. At 11.30 P.M. the nurse thought he was dying, and called Mr. Walsh, who found him fast asleep, his respiration being only four per minute. He was awoke, when he said he was very comfortable, his respirations while awake being normal. In a few minutes he fell asleep again, when his respiration once more dropped to about four per minute, and was rather stertorous in character. In about an hour's time his respiration became normal.

On July 30th he was very drowsy all day, sleeping continually, though easily roused; temperature 101·8°. Next day he seemed much better.

On Aug. 1st the temperature went up to 102·1°, the pulse being 114 and the respiration 24. On the 2nd the drowsiness had nearly passed off; the ligature came away, the wound looking sloughy; temperature 99·2°. Four days later (the 6th) the wound had almost healed, and for the first time the right pupil was noticed to be contracted and the left dilated. On the 11th the pupils became very nearly equal. On the 14th the pupil of the right eye again contracted; the wound was healed; he complained of pain in the left knee-joint, which was found to be swollen and inflamed; temperature 101°; a back-splint was applied. On the 17th the knee was perfectly well; temperature normal. On the 21st he was discharged quite well, but with the right pupil still contracted and insensible to light.

On Oct. 23rd he came to show himself. Said he was quite well, though he looked rather heavy and dull. The right pupil was still contracted and insensible to light, while the upper eyelid drooped a little. The vision of both eyes was perfect.

Remarks by Mr. WALSH.—I have thought this case worthy of publication—first, because of the extreme danger attending wounds of the internal jugular vein, for even if hæmorrhage be arrested (and many cases are on record where the attempt has failed), unhealthy inflammation with all its dangers frequently supervenes. Mr. Bryant says that "wounds of the internal jugular vein are probably more fatal than wounds of the carotid, and when near the cardiac end, in addition to the danger of hæmorrhage, is added that of introduction of air into the heart." There is also secondary hæmorrhage and pyæmia looming in the future as a probable complication. Secondly, I do not remember to have experienced so much difficulty before in seizing the bleeding vessel, the depth of the wound being considerable, and the space before enlargement contracted. Thirdly, the after-symptoms were rather inexplicable. Why should his right pupil be contracted and remain so? His head symptoms, as denoted by his extreme drowsiness, his infrequent respirations, &c., might be accounted for by his exhaustion from the loss of blood. Then, again, his threatened attack of pyæmia of the knee, which passed off in a day or two. Could a filament of the sympathetic nerve have been included in the ligature, and, if so, would that account for the above symptoms? Of course, it is clear that neither the descendens noni nor the par vagum was injured, or more serious results would have followed.

HOSPITAL FOR SICK CHILDREN, BRIGHTON.

TETANUS FOLLOWING A FALL ON SACRUM; DEATH.

(Under the care of Mr. LEIGH.)

FOR the following notes we are indebted to Mr. W. Gilchrist Burnie, M.R.C.S., late resident medical officer.

W. M——, aged ten years, was on Friday, August 2nd, in practising gymnastics, turned backwards over a horizontal bar, and fell on his sacrum. He did not at the time feel hurt, but next morning complained of pain in his back and belly in getting out of bed. He got about on that day. On the 4th he suffered pain in his back, and was too ill to go to church. Next day, though still complaining of feeling out of sorts, he got up and had a swim in the sea. On the 7th, at dinner, where he was sitting propped up because his back was stiff, his neck suddenly became rigid and his jaw fixed. He was now seen for the first time by a medical man, and again on the following day, during which day the symptoms seem to have been increasing. Twice during the 8th he had a spasm, jumping and clutching the bed, and complaining of tightness in the throat and præcordia.

On August 9th he was admitted. There was marked opisthotonos and trismus. Pulse 80; temperature 98°. The bowels had been confined since the 2nd. Ordered to have four grains of calomel and an enema. Diet to consist of milk, eggs, beef-tea. On the 10th the bowels were open freely (three times). Pulse 104; temperature 100°. There was no marked improvement, but, if anything, the opisthotonos was not so great. He preferred sitting up, supported under the shoulders. Hands and arms not affected. Ordered four grains of chloral hydrate every three hours. At eight o'clock next morning he was seized with dyspnœa, and turned black in the face; his arms and legs were fully extended, the hands were clutched, and the thumbs down. This condition lasted nearly half an hour, then he gradually improved. At 10 A.M. he was free from pain; the limbs were relaxed and flexible; the jaw was still fixed. He had taken two pints of milk, a little beef-tea, and one egg. Bowels not open; pulse 112. Enema to be repeated, and to have ten grains of bromide of potassium added to the chloral. He had another fit about 3.30 P.M., after some difficulty with his medicine, his condition being the same as in previous attack. During the night he was restless, and started several times. He took milk, &c. At 5.30 on the morning of the 12th, without apparent cause, he had another fit, and again another, more violent, at 11.30 A.M. During the latter he turned over on his side, the bowels acted at the time, and urine passed involuntarily. The saliva was tinged with blood. A quarter of an hour after the skin was moist; pulse 120; temperature 100°. He could open his mouth more (about three-quarters of an inch); the tongue was coated. He swallowed a dose of medicine pretty easily. The back and neck were arched about the same. He complained of pain in the pit of stomach, which compelled him to "jump up," as he himself said. The spasms returned with increasing frequency. At 11.40 P.M. he had a severe spasm, after which he fell into a doze. Temperature 99·2°; pulse 100. On the 13th, about 10.20 A.M., he had another severe spasm. [Temp. 99.2°; bowels not open; pulse 100. At 12.30 P.M., had the most severe fit he had yet had. Chloroform was administered, with the effect of giving the boy a quiet sleep. At 3.30 P.M., he had a severe fit, which lasted twenty minutes. No chloroform was given. At 4.30 P.M. he had another fit; chloroform given, after which he was comparatively quiet. At 5 P.M. the pulse was 120; temperature 100°. Ordered to have his medicine in form of enema, fifteen grains of chloral, and ten grains of bromide of potassium. At 11.45 P.M. he had had no more fits. Had a little milk and beef-tea; had dozed; skin moist. Pulse 100; temperature 101°. On the 14th, at 2 A.M., Mr. Burnie was called to him, and found him in a very severe fit. Chloroform was administered, but it was necessary to desist before relaxation was produced, as the pulse almost stopped. Brandy was given, the pulse improved, and in about half an hour the fit passed off, and the boy dropped into a doze. At 3 A.M. he was again found in what appeared a slighter fit. During a spasm he, however, died before chloroform could be given.

Necropsy, 4 P.M., Aug. 14.—Body spare, but well-grown and well-nourished; rather muscular for the age. All dependent parts livid; upper parts blanched. Rigor mortis slight. No external signs of injury of any kind. Spinal canal opened, and cord removed from close to the skull to top of sacrum. In cutting through the muscles of the back there was no sign of bruising or injury; the blood was fluid. There was nothing abnormal about the dura mater of the cord, though its vessels were rather gorged, as were those of the pia mater, especially towards the lower end. The substance of the cord itself appeared natural, except in one place—viz., on its anterior aspect about equidistant from each extremity, where there was an oval patch about half an inch long, and nearly the breadth of the cord, which felt soft and was raised, and had a greyish colour. On cutting through the cord at the middle of this patch a difference in the appearance could be traced about one-fourth or one-third of the thickness of the cord; but, though the substance was softer at this point, it was not friable. (Owing to the pathologist to whom the cord was sent being away from home the specimen was not received until too much changed to allow of a microscopical examination.) On turning forward the scalp, there were observed on the inner side of it, somewhere near the anterior fontanelle, six or eight spots, from the size of a hemp- to a millet-seed, like little bruises; but there were no corresponding marks on the cranium. The dura mater was somewhat gorged, and was universally firmly adherent to the inside of the skull. The brain, though rather large and congested, was otherwise healthy. No further examination was permitted.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Report of Committee on Suspended Animation.—Large Dermoid Cyst in the Abdomen of a Man.—Malformation of Male Genital Organs.—Removal of Diaphysis of Tibia for Acute Necrosis.

THE first ordinary meeting of this Society for the session was held on October 28th, Mr. J. E. Erichsen, F.R.S., President, in the chair. A preliminary report from the committee appointed to investigate the comparative merits of the method for restoring suspended animation used by the Royal Humane Society and that of Dr. B. Howard was read, and gave rise to some discussion. A remarkable instance of dermoid cyst in the abdomen of a man was related by Drs. Miller Ord and Brodie Sewell, and the former also contributed a description of a rare malformation of the male generative organs with persistence of the Müllerian duct. The last paper read was one by Mr. Pye on removal of the shaft of the tibia for acute necrosis.

The following is a brief summary of the conclusions arrived at by the Committee on Suspended Animation, with especial reference to the comparative merits of the method used by the Royal Humane Society and that of Dr. Benjamin Howard. Their observations were limited to experiments upon two subjects, and were conducted at King's College. The first was on a female, and on Howard's method. The average of ten experiments showed that 6·1 cubic inches of air could be admitted into the lungs; on the Humane Society's plan the average for the same number of experiments was 9·1 cubic inches. There was ossification of all the costal cartilages in this subject, pleural adhesions, and in the left pleura twelve ounces of serum; there was also a phthisical cavity in the upper lobe of the right lung, whilst the air-passages were plugged with viscid mucus. The second subject was a robust male killed by accident; here, on Howard's plan, an average of ten experiments yielded 7·5 cubic inches as the amount of air gaining entrance into the lungs; on the Humane Society's method 10·7 cubic inches. Besides a fractured skull there was fracture of the seventh and eighth left ribs, and some old tubercle in the lungs. The committee propose to continue their observations, but suggest the adoption of Howard's proposal as to (*a*) the removal of fluid from the air-passages and stomach, and (*b*) the position of the head and neck and trunk during the performance of artificial respiration. They point out that the more fully extended position of the head in Howard's plan is preferable to that published by the Humane Society as securing greater patency of the superior aperture of the larynx, and less impediment to the entrance of air.—The PRESIDENT, in thanking the committee, trusted that their further observations would lead them to wider and more definite conclusions. He particularly urged the importance of the precaution insisted on by Howard and not regarded in the rules of the Royal Humane Society, for clearing out the air-passages and widening the glottis by drawing forward the tongue. In the case of the apparently drowned nothing could be easier than to scoop out all slime, mud, &c., with the finger, and at the same time to draw forward the tongue, which alone almost served to start the act of inspiration. If that were not done air would be apt to be sucked into the stomach when artificial respiration was being performed. He had seen the value of this manœuvre in cases of asphyxia from anæsthetics. Again, the usual mode of conveying the apparently drowned on a litter, or by two or three persons holding the subject by the shoulders and legs, was faulty, for the head was allowed to hang down, and the chest was compressed. If, on the other hand, he were carried face downwards, not only would this assist the escape of water, slime, &c., from the mouth and nostrils, but the chest would be expanded rather than compressed.—Mr. CLOVER, having seen some cases of anxiety arising from asphyxia from the administration of anæsthetics, and one case of death, believed this due to the difficulty of entrance of air through the glottis; the tongue, being paralysed in profound narcosis, rolled back, and formed a valve, which allowed air to pass out of the lungs but not to enter, so that his first aim in such conditions was to raise the chin and draw forward the tongue. He would now increase this by putting a splint on the sternum, and forcing the chin backwards. If this were not done, artificial respiration would be injurious, for air would be driven out of the chest, and would be unable to enter; and this would tend to cause an inflow of blood, and death would follow from over-distension of the heart. The amount of air compatible with life was not large. Very little, for example, was taken in an ordinary ether inhalation, so that the comparatively smaller amount admitted on Howard's plan was not of chief moment.—Mr. SAVORY was struck by the very small amount of air the committee had found to be changed on each method—certainly not more than one-third that of tranquil respiration. The committee appointed in 1862 (of which he was a member) found wide variations in this in different subjects, but often the amount was far in excess of that found in the present inquiry. Thus it varied from nine to forty-four cubic inches. In restoring the apparently drowned, besides performing artificial respiration, water &c. have to be got out of the air-passages. He considered that for the former purpose the Humane Society's method was superior to Howard's.—Mr. HOLMES pointed out that another element to be considered was that the method of artificial respiration fell to be performed by persons uninstructed in other respects. Hence the ease and handiness of the method should be considered, and in this respect he was struck by the advantages of Howard's plan over that ordinarily in vogue. Again, as others had said, these methods involved the removal of foreign matters in addition to the entrance of air, and here again the position of the body on Howard's plan was preferable to that on the Humane Society's method. He expressed the hope that the committee in their further report would deal not simply with the scientific side of the matter, but also with the question which method was the more practicable; for he agreed with Mr. Clover that a very small quantity of air admitted into the lungs would suffice to keep life going.—Mr. HULKE had on several occasions practised both methods, and, whilst endorsing what had been said as to the value of the instructions given by Howard for the preliminary treatment, he thought there were great advantages in the Humane Society's plan in the performance of artificial respiration, the position of the operator being far more natural and easy than in Howard's method.

A paper was then read entitled "Description of a large Dermoid Cyst removed from the Abdomen of a Man," by WILLIAM M. ORD, M.D., and C. BRODIE SEWELL, M.D. The cyst exhibited was removed, post mortem, from the abdomen of a gentleman, a patient of Dr. Sewell. It had not occasioned much suffering, but, having caused wide separation of the recti abdominis, was tapped to relieve pressure. About two pounds of liquid fat came away, but no more could be extracted. The tumour was not materially diminished. Peritonitis set in three hours after the operation, and carried off the patient at the end of five days. The tumour when removed weighed 14¼ lb., was 10 inches broad and 13 inches long, and was filled with fat, partly in a pulpy state, partly in a great solid cake. The fat consisted almost entirely of fatty acids with a bare trace of butyric acid. It contained numerous hairs and much epithelium. The cyst presented hairs on its inner surface and sebaceous glands of great size beneath the surface, but no sudoriparous glands or regular papillæ. The tumour was first remarkable for its great size as compared with the ordinary size of dermoid cysts. Next it was remarkable as occurring in the male abdomen. It was so intimately related with the rectum and bladder as to lead to the inference that it had its origin in connexion with the genito-urinary organs. There was, however, no malformation of genital organs. The formation of a dermoid cyst in the abdomen of a man might be explained—(1) upon the idea of "fœtal inclusion;" (2) upon the idea of "developmental inclusion," such as gives rise to cysts in the track of branchial and other developmental fissures; (3) upon the idea of "aberrant development," according to which deformities arise out of the persistence of embryonic structures, which should in the natural way disappear or undergo complete remodeling. Applying the last idea we may be reminded that the ovary and testis spring from one blastema, each being brought as it grows into communication with an excretory tube of different origin in each case. If any part of this blastema fail during development to be brought into its proper system by

means of its proper communications, the part so left out, having lost its natural guidance, may be readily conceived as proceeding to irregular development. In such a case as the present, the destiny of the blastema being either ovary or testis, the fragment takes on ovarian ways, and produces a dermoid cyst, as an ovary might. If development inclusion were the causative process, the tumour would be expected to be connected with abdominal walls. On the other hand, the authors had been unable to find any structural aberration in the genito-urinary organs. They were left to choose between fœtal inclusion and aberrant development, with an inclination to the latter, founded upon consideration of similar ovarian tumours.—Dr. JOHN HARLEY, believing that such tumours started from the inclusion of areas of the embryonic skin structures, thought that this might be one reason for their greater comparative frequency in females. He inquired if there was anything in the family history pointing to imperfect closure in the median line, or other condition, which could have led up to this.—Dr. BRODIE SEWELL said the only point in the family history was, that a brother of the patient, some years previously, had been thought to have an empyema, which, on tapping, yielded a fluid similar in appearance to that contained in the cyst in this case. He was struck by the great depression of vitality caused by the tumour, which it seemed must have been of congenital origin. The case had all the physical signs of hepatic dropsy, and the umbilicus was completely unfolded.—Mr. HULKE confessed still to be in the dark as to the genesis of these dermoid cysts. They occurred most frequently perhaps in the neighbourhood of the orbit, but *not* in the position of the branchial clefts; nor had they any connexion with skin, but were always found beneath the orbicularis muscle, and generally intimately attached to periosteum. The parthenogenetic view could not explain their development in other regions than the ovary, and he had recorded in the Path. Soc. Trans. (xxiv., p. 157) a case where multiple dermoid cysts existed (some six or seven). It was very difficult to understand their origin in such a case, and, in spite of the admirable exposition of the subject by Dr. Ord, he still confessed that his difficulties were unsolved.—Mr. SAVORY said that the view of parthenogenesis had reference solely to such cysts in the ovary, where they were found often to contain not only epidermal tissues but bones and parts of skeleton, such a view seemed a reasonable one. Parthenogenesis gradually disappeared as the scale of animated life was ascended; it occurred in birds, and even in the human virgin sometimes fragments of an imperfectly formed being were found.—Dr. ORD, in reply, said that he shared Mr. Hulke's difficulties. He did not intend to imply that inclusion of epidermal structures would explain all cases. Probably the ultimate bearings of this case would agree with the idea suggested by Mr. Savory, in that portion of blastoderm which should become ovary or testis (in this case the latter) not being connected with its proper ducts, and developing a structure which in an aberrant way produced the cyst.

A case of Malformation of the Genital Organs of a Man, with persistence of one of the ducts of Müller, was then read by WILLIAM M. ORD, M.D. The preparation exhibited had been taken from the body of a man, aged thirty-six, who died in St. Thomas's Hospital of phthisis and complications. At the post-mortem examination a large tube, running from the head of the right kidney to the under aspect of the bladder, attracted attention, and was supposed to be a supernumerary ureter. The skill of Mr. Stewart, curator of the museum of the hospital, enabled him, after a careful examination, to reject this idea, and identify the structure as, probably, a surviving Müllerian duct. The tube, beginning in a blind sac at the head of the kidney, ends, without organic connexion with any other structure, in the median line of the floor of the prostatic urethra, by a patulous orifice placed just above those of the ejaculatory ducts. The testis on the same side was undescended, being arrested in the inguinal canal; the vas deferens and vesicula seminalis on the same side were incompletely developed, but pervious; the external genital organs perfect, except as regarded the position of the right testis. A small glandular structure was found capping the right kidney, but separated from it by a fibrous septum; this gland was also in contact with the end of the blind tube. The gland had the structure of a renal organ, with evidences of contraction and degeneration. It was suggested that the tube was the right Müllerian duct arrested in an early stage of its retrogression, and that the gland represented a parallel state of the Wolffian body. The only similar case of which Dr. Ord had been able to find record is shortly reported in the *British Medical Journal* of Sept. 6th of this year, as having been examined by Mr. Remy. The subject was a boy aged six. The malformation was unilateral; the persistent Müllerian tube took much the same course, but its head was related with a number of cysts, supposed to be remains of the Wolffian body. The hydatid of Morgagni and the organ of Giraldès were both present.—Mr. SPENCER WELLS said that occasionally the subject of undescended testis does become of importance to the practical surgeon. He related a case seen in consultation with Sir James Paget, where malignant disease had started in a retained testis and formed a large abdominal tumour. He opened the abdomen, and removed the tumour, as in ovariotomy, and found a large cyst in the midst of the diseased mass, the whole tumour weighing 9lb. on removal. The patient died on the third day from septicæmia, which Mr. Wells attributed to his having used thymol as a spray instead of carbolic acid. He had since found that the use of thymol had been discarded by certain German surgeons, and he should not himself use it again for this purpose.

Mr. WALTER PYE related a Case of early Removal of the Diaphysis of the Tibia for Acute Necrosis, occurring in a lad of nineteen. The lad was admitted into St. Mary's Hospital with the signs of acute necrosis of the tibia, and with coincident necrosis of the ungual phalanx of one of the fingers. The necrosis ran a very acute course, and within three weeks of its development the diaphysis perished, almost in its entirety. The patient's condition called urgently for operative interference, and, after consultation with Mr. Herbert Page, it was resolved to remove the necrosed shaft in preference to amputation at the knee-joint. The operation of subperiosteal resection, recommended by Mr. Holmes, was accordingly performed, and the whole diaphysis was removed, the periosteum being preserved by incising it along the whole of its anterior surface, and separating it where necessary from the necrosed or necrosing bone. The patient made a satisfactory and tolerably quick recovery, with the formation of a very good new tibia. He was discharged from the hospital five months after the operation, and was able to walk on the limb three months later. There was little or no shortening, and the leg continues to be a very useful and shapely one. The author directed attention to the time in the history of the necrosis at which the bone was removed, the age of the patient, and to the ease with which the bone was removed. Photographs of the bone removed and of the patient nine months after the operation were shown.—Mr. CROFT would have liked a description of the bone removed; from its adhesion in places to periosteum and the patency of the nutrient artery, it would hardly be considered to be dead throughout, and he believed that a total necrosis of the diaphysis was very rare. What was the cause of the necrosis in this case? Sometimes it seemed to be due to blocking of arteries, sometimes to exudation between bone and periosteum.—Mr. SAVORY said the periosteum is but part of the bone, so why should not the necrosis be due to acute inflammation of the whole substance of the bone, and not of periosteum alone? He asked whether it was noticed if the new bone were produced from periosteum or developed from the epiphysial ends. In many cases in children repair is imperfect owing to destruction of periosteum.—Mr. MORRANT BAKER asked whether the abscess at one end of the bone had any relation to the necrosis, and he related a case he had seen lately where, after the evacuation of a subperiosteal abscess, the periosteum again became adherent, and very little necrosis followed.—Mr. HOLMES certainly believed there were cases where acute periostitis alone led to necrosis, from the separation of the membrane from the bone. A few years ago a foreign surgeon, a pupil of Langenbeck's, was going round St. George's Hospital with him. He was contending that acute periostitis never occurred *per se*. It so happened that a lad under Mr. Holmes's care was at that time dying from pyæmia, associated with acute periostitis, and on post-mortem inspection the bone which had necrosed presented no evidence of inflammation in its internal structure. Another case was that of a man who sustained some injury to the foot three weeks before admission. The case was treated as one of diffuse cellulitis, and it was not until after death that it was found that all the bones of the foot had perished from suppurative periostitis, and none of them were inflamed in their substance. A portion of bone may be dead, and yet partly attached to the

periosteum. He did not quite see how the author ascertained that the whole shaft was dead before the removal, which he rightly performed. That the bone was largely reproduced from epiphysis there was no doubt, but it also took place from periosteum. He mentioned a case in which bone was reproduced from periosteum after excision of a part of bone.—Mr. PYE, in reply, admitted that perhaps the term "total" necrosis was not strictly correct; but it was very nearly so, and all that was removed was practically dead. The etiology was not clear; the patient himself said that he "got cold," and had pain in his thumb and leg, but there was no history of injury. The operation was easy, and the formation of new bone from the periosteum could be watched day by day after the operation. The abscess in the vicinity of the upper epiphysis was regarded as evidence that at that spot, at any rate, the necrosis was due to ostitis as well as periostitis. The whole interest of the case lay in the age of the patient; what would not be rare in a child of seven or eight was unusual in a lad of seventeen.

The Society then adjourned.

CLINICAL SOCIETY OF LONDON.

Cerebral Rheumatism without High Temperature.—Case of Lightning-Stroke.—Cancer of Breast following Eczema.

THE ordinary meeting of this Society was held on Oct. 24th, Dr. Greenhow, F.R.S., President, in the chair. The members were greatly shocked by hearing the death of the late President announced from the chair. The President nominated a committee to inquire into the subject of high temperature in rheumatic fever and allied conditions. Two cases bearing on this subject were related by Dr. Southey. A remarkable case of lightning-stroke was contributed by Dr. Wilks, of Ashford. The subject of eczema of the nipple, and its relation to cancer, gave rise to much discussion, in which Sir James Paget, Mr. Hutchinson, Dr. Thin, and Mr. Butlin joined, the case being one related by Mr. G. Lawson.

The PRESIDENT, on taking the chair, said that since he had entered the room he had heard of the great loss which the Society had just sustained in the death of his predecessor in that chair, Mr. Callender, on his way home from America. They all knew how laboriously he had worked for the Society, how constant he had been in his attendance, and, finally, how well he had performed the duties of President. His loss would be deeply mourned. The President next announced the following nomination of a committee to inquire into the causes, consequences, and appropriate treatment of high temperature in acute rheumatism and allied disorders:—Drs. H. Weber, Southey, Ord, F. Taylor, Barlow, and Coupland. The committee were to report before the end of April, 1880.

Dr. SOUTHEY read notes of two cases of Cerebral Rheumatism without marked Hyperpyrexia. Case 1. A fairly-nourished man, twenty-three years of age, admitted four days after onset of articular pain and swelling, with a temperature of 103° F. Pulmonary signs natural; slight precordial friction. Alkalies were prescribed. On the eleventh day of illness, with no fresh pain in joints, his manner became abrupt and peculiar, and he had some delirium. Sleep was disturbed. On the twelfth day the same condition continued. His hands were tremulous, and the day after the temperature reached 103·8°. There was much delirium. He was put on conium, in two-drachm doses of the succus, afterwards increased to half an ounce, and combined with bromide of potassium; ice was applied to the head, and food frequently given. The delirium was unlike that of alcoholism. The day after ice applications he became more rational. Pain returned to the knees, back, and elbows, but jactitation and tremor still persisted. He was discharged convalescent after twenty-four days' stay. Case 2. A female, aged twenty, admitted on Sept. 23rd with third attack of rheumatism, from which she had suffered for two years. She came in on the fifth day of her illness, and presented a mitral regurgitant murmur, in addition to slight articular affection. Temperature 99·6°. Chloral was given. On the sixth day the temperature reached 101·2°, but the day after fell to 97·3°. On the ninth day slight lividity of lips was noticed, and the pulse became quick and feeble; urine very scanty. The temperature rose to 100·4°. She began to complain of very severe epigastric pain, and had some bilious vomiting. The pain never abated, the face became pale, pulse very small, and she died that night. The post-mortem examination, twenty-four hours later, showed decomposing blood-clot in the heart, the muscular fibres of which were very granular (from decomposition?); there was a slight patch of roughening in the pericardium over the aorta, and some vegetations on the mitral valve. The spleen and liver were soft; the brain and its membranes normal. Dr. Southey remarked upon the occurrence of vomiting, epigastric pain, and lividity in fatal cases, and he attributed the cause of death to a profound blood-change, rendering its circulation in the lungs difficult. Such a change might also be the cause of hyperpyrexia, from irritation of the heat-centre in the spinal cord by the altered blood.—Dr. C. T. WILLIAMS asked if the blood was examined microscopically.—Dr. J. T. MACLAGAN took a different view of the case last related, but he agreed so far that ultimately it might be proved that the cause of hyperpyrexia depended upon the heat-centre being acted on by the rheumatic poison. For the existence of such a centre there was abundant evidence in the records of spinal injuries. But the case in question seemed rather one of death from carditis.—Dr. SOUTHEY said the blood was quite decomposed. It was not examined microscopically. And as to the chemical conditions of the blood, we were yet too scantily informed of these to dogmatise. The pericardial change was old, and probably due to previous attacks of rheumatism. The striation of altered muscular fibre alone favoured the view of carditis.

A paper was then read from Dr. G. WILKS, of Ashford, giving particulars of a case of Lightning-stroke. A farm-labourer was struck by lightning on June 8th, 1878, while staying to empty his bladder by a willow tree close to the window of a shed in which his three fellow-workmen had just taken shelter from a violent storm of rain. The lightning passed in at the door and out of the window, which it blew into the field. The three were scared for a time, and on recovering sought their companion. They found the tree partly denuded of its bark, and the patient's boots standing at its foot. The patient himself was lying on his back two yards off, and though he was fully clothed previously, he was now *naked*, with absolutely nothing on except part of the left arm of his flannel vest. He was conscious, but much burnt, and his leg was badly broken. The field around was strewn with fragments of the clothing; the clothes were split or torn from top to bottom, the edges of the fragments being often torn into shreds or fringes; they only showed evidences of fire where they came in contact with metal, such as his watch and the buckle of his waist-belt. There were no laces in the boots. The left boot was torn and twisted into fantastic shapes, but the sole was uninjured, and there were no signs of fire upon it; the right boot had the leather much torn and the sole rent and burnt. The watch had a hole burnt through the case, and the chain was almost entirely destroyed. The stockings were split down the inner side; the hat was uninjured. The patient stated he was struck violently on the chest and shoulders, became enveloped in blinding light, and was hurled into the air, coming down on his back "all of a crash," and never losing consciousness. Three hours later he was seen by Dr. Wilks; he was then quiet, but complained of a little pain in each leg, and of a universal sense of burning, fiery heat. He was also deaf. The hair of his face was burnt, and the body was covered with burns, superficial on the chest, but deeper on the abdomen and right thigh. Down each thigh and leg was a broad crimson indurated band of burning, passing along the inner side of the knee, and ending below the left inner ankle and at the right heel; a lacerated wound, with a comminuted fracture of the os calcis. The bones of the right leg were fractured, and the tibia protruded through the skin in the course of the burn. The fracture was reduced and slung; the burns were treated with carron oil, and milk diet was ordered. After the eighth or ninth day his progress was uninterrupted, but delayed by the slowness with which the heel recovered. He was discharged twenty weeks after the occurrence. Dr. Wilks remarked on the almost complete exemption of the nervous system, and on the probability that the clothes being wet acted as good conductors, and so diverted the electric current from the great nervous trunks,

thus saving the man's life. [The various articles of clothing, the watch, and portions of the bark of the tree, were exhibited to the Society.]—Sir JAMES PAGET said that he had hoped Professor Tyndall would have been present, but he had been unfortunately prevented from attending. He pointed out that not only were the clothes saturated, but the man's skin was also bathed in sweat, and the lightning in its course had travelled down the clothes, rending them down the back, and completely stripping the patient. The ragged fringes at the lower end of the trousers showed how the current had passed off in different directions. The boots were split up behind, and the laces torn out, and these articles then torn off; and that one which was on the left foot, the heel of which was off the ground at the time, had its heel-portion completely shattered. Sir James also remarked on the course taken by the current through the watch. He contrasted the stripping of the man to the effect produced on the tree which was denuded of its bark, the lightning traversing the cambium layer. He did not think there was a case on record where a man had escaped so completely from so large a sweep of lightning; and all must agree that he had been very well treated to have recovered from his recent injuries.—Dr. BROADBENT suggested that the stripping of the body was due to the rapid formation of steam, which, by its sudden expansion, would rend the garments. He thought that the same explanation held for the barking of trees struck by lightning.—Dr. ALTHAUS believed some analogous cases were recorded in the earlier volumes of the Philosophical Transactions. He did not think the effects produced were due to the development of steam. Lightning consists of frictional electricity, and its effects are chiefly mechanical; and the effect of tearing garments to rags was comparable to the shattering of a stone by this form of current. Wherever metals were in contact with the clothes, then the calorific effects were produced. That there should have been no effects produced on the nervous system was singular; but it must be remembered that there was a great difference in individuals as to their electrical conductions, and possibly this man was a bad conductor.—Dr. HEWAN related an instance in which a dog was supposed to have been killed by lightning. No external marks were seen, but there was great fluidity of blood. He knew a lady who illustrated the fact just mentioned by Dr. Althaus, for whenever she shook hands with a certain gentleman she gave him a shock.

Mr. G. LAWSON read notes of a case of Cancer of the Breast following Eczema of the Nipple. The patient, a married lady fifty-one years of age, consulted Dr. Tilbury Fox in July, 1878, for a chronic eczema of the right breast, which she had had for several years, but which had not healed. Dr. Fox asked Mr. Lawson to see the case, for fear there might be evidences of cancer, but at that time the gland itself was unaffected; the nipple, however, was slightly retracted; the axillary glands were not enlarged. Twelve months later the patient came again, and now the breast was large and hard, and there was an enlarged gland in the axilla. Sir James Paget, who was consulted, concurring, Mr. Lawson removed the breast and lymphatic gland; the wound healed rapidly, and at the end of three weeks the patient returned home. There has been no recurrence hitherto. Dr. Thin, who examined the organ microscopically, found the diseased skin to be sharply limited by a zone in the epidermis; the corium was the seat of chronic destructive inflammation, and the connective tissue of the nipple was infiltrated with epithelioid cells; the small portion examined contained no ducts, so that direct continuity of change in them and the gland (which was the seat of well-marked epithelial cancer) could not be traced. Mr. Lawson remarked that the case belonged to the class drawn attention to by Sir James Paget and Mr. Butlin, where eczema of the nipple preceded cancer of the breast. It might be doubted if this so-called "eczema" is indeed a true eczema, owing to its long duration and intractability. In this case (the specimen was shown) the patient had suffered four years from what had been regarded as eczema [of the nipple, and that her breast might become the seat of cancer was frequently anticipated. The important practical question was whether in cases of intractable "eczema" of the nipple the breast should be excised, thus anticipating the development of cancer. In one case where an ichthyosis of the tongue had lasted for eighteen years, he had excised the organ, from the knowledge that such a condition almost invariably terminated in epithelioma. On the same principle he also frequently excised an eye which had been dangerously wounded, in order to anticipate the development of sympathetic ophthalmia on the opposite side.—Dr. THIN was, and still is, of opinion that the cutaneous change in these cases is not eczema; a papular or vesicular eruption with exudation did not suffice for the diagnosis of eczema, and in the present case the very sharp line of limitation of the affected patch was against its being an eczema; were it so, there would have been intolerable itching. He did not regard the "eczema" as preceding the cancer, but the contrary. There was evidence of epithelial growth in the lactiferous ducts, and he suggested that the epithelium might remain long affected but quiescent, still, however, causing the production of a certain amount of "cancer-juice," which would produce a distinctive and incurable affection of the skin in the vicinity. To treat such an affection as if it were an eczema was to ignore its cancerous condition. Eventually, however, the change is propagated to the gland itself and to the neighbouring lymphatics.—Mr. BUTLIN said that he was to a certain extent responsible for the use of the term "eczema" in this connexion; for Sir James Paget in his paper on the subject had called it an "eczematous condition." It was a raw, excoriated condition of the nipple, which was constantly discharging. In most of the cases he had seen the nipple was in this state. In one case the nipple protruded, was redder than the opposite nipple, and was covered with small scales. It did not discharge from the surface, but was firmer and less elastic than the opposite one. Histologically this nipple presented the same characters as in the other cases, with change extending down the ducts. In the first case he described, he found all the ducts in the nipple full of diseased epithelium, but in others the change was limited to some of these ducts, which could, however, be traced directly down to the cancer in the gland.—Sir JAMES PAGET said that the subject was one of those in which clinical and pathological facts had not yet come to accord. Perhaps it was unwise to give the name of eczema to the condition, for the rule should rather be, if any breast had suffered long from great disturbance of nutrition, it was in risk of becoming cancerous. He said "becoming cancerous," for from the clinical point of view he would differ wholly from Dr. Thin; for there were stages in this disease in which it was curable. Nor do they stand alone; they are examples of a very large group of affections which are liable to become cancerous. Mr. Lawson had referred to one of them—e.g., ichthyosis of the tongue. It would be bold to say that all these were cancerous from the beginning, especially as for periods of three or four years their progress was so slow and hardly observable, and then cancer rushes in. Another group allied to these was that of scars after burns of the lower extremity. If in advanced life these begin to ulcerate, they are very liable to become cancerous. So again with syphilitic disease of the tongue, and many more conditions in which cancer was likely to supervene later in life. What the precise changes are—whether the result of a gradual process, or the intervention of some new factor,—he could not say; but from the clinical side there was a time in such cases when the disease was not cancerous, and a time beyond which cancer is almost sure to occur.—Mr. HUTCHINSON said they were clearly dealing with the pre-cancerous stage of cancer, and they should feel obliged to Mr. Lawson for his advocacy of prompt and energetic intervention in such conditions. Some years ago he wrote a paper "On the Successful Cultivation of Cancer," to draw attention to the ill that resulted from the use of mild measures. He doubted the wisdom of attempting any very accurate definition of eczema. The important fact was that cancer supervened upon that which clinically and commonly is styled a local eczema. The term eczema did not admit of precise definition; it did not embrace any one clinical group of symptoms. So that it was very probable that in some cases a disease which is a local disorder of the nipple ends in inducing cancer, as the patient advances in years and the cancerous period of life is entered on. And this may be, although some cases (a minority) did recover, and did not issue in cancer; and he thought Mr. Lawson had well put it in saying that if an eczema of the nipple *resists* treatment for a long time, then surgical interference should be had recourse to. He also agreed with Mr. Lawson in his advocacy of early treatment in ichthyosis of the tongue. He had removed such a patch, which to the naked eye showed no evi-

dence of cancer; but it was in the precursory stage, and an experienced histologist, who examined it, reported that carcinomatous elements were present in it. — Mr. H. MORRIS had had two cases under observation which bore out the facts stated. They also presented the clinical history of this so-called eczema of the nipple, and ended with mammary cancer and widespread cancer in internal organs. The duration of the condition of the nipple and areola—in one case five or six years—was far too long to suppose that the cancer in the breast had preceded it, the duration of mammary cancer being seldom more than twelve months. At the same time age should be taken into account; for there had come to the cancer department of the Middlesex Hospital a girl, eighteen years old, who had had ulceration of the nipple and areola. She had been told that it was cancer. It was a very difficult point to know when to advise removal of the breast showing this condition, and just the same difficulty was present in regard to ichthyosis of the tongue. He knew of a man with the latter affection, from which he had suffered for four or five years, but he had not felt warranted in operating. The number of cases at present observed was too small to formulate any rule as to the length of time which this condition of nipple should be allowed to last before it was right to operate. During the last ten years he had seen very many cases of mammary cancer in the cancer department at the Middlesex Hospital. When he was registrar, there was no case in which a history of previous ulceration of the nipple was ascertained; and out of upwards of 500 cases he had seen in the past six years in only two (those he had cited) had this condition preceded the cancer.—Mr. LAWSON, in reply, said that he would content himself with giving the opinion of the late Mr. De Morgan on this subject. On May 15th, 1875, he saw a case of "eczema of the nipple" with Mr. De Morgan, who, deeming it to be an epithelial cancer, destroyed it by chloride of zinc. On Dec. 19th, 1877, Mr. Lawson saw the patient again, and she had a large bunch of glands in the axilla, which he removed, after consultation with Sir James Paget. The patient was now dying from internal cancer.—Dr. THIN, in reply, said that he did not mean that the cancer of the mammary gland preceded the skin affection, but that the ducts in the nipple were the seat of abnormal and irregular epithelial growth, which might remain so for years without change. If the diseased parts be removed at this stage, recovery might be assured; but the longer it lasted the more risk there was of the membrana propria of the ducts giving way, and the epithelial growth spreading into the connective tissue and into the gland-substance.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

Treatment of Ununited Fracture of Patella.—The Passage of Gall-stones.

THE ordinary meeting of this Society was held on October 27th, Dr. Cockle, President, in the chair.

Mr. ROYES BELL read notes of a case of Ununited Fracture of the Right Patella, with two inches and a half of depression between the fragments, operated on antiseptically. The patient, a railway porter, aged twenty-seven, came under Mr. Bell's care at King's College Hospital on July 5th, 1879, having sustained a transverse fracture of the right patella on Sept. 24th, 1878, for which he was treated on the ordinary plan by Dr. Aldridge at the Yeovil Cottage Hospital. When discharged at the end of seven weeks the fragments were in apposition. He did not resume work until January 21st, 1879, and eleven days after, whilst bending down to clean a carriage, he felt the knee give way; the fragments became separated, and it was found impossible to approximate them. He managed to get about, with the limb in a back splint and with the aid of a stick, but was practically unfit for duty. When seen by Mr. Bell, the right patella was found to be fractured transversely, the upper fragment being the smaller, and separated from the lower by about two inches and a half. The fragments could be approximated to about one inch; the skin was adherent to the fibrous tissue connecting them, and the outline of the condyles was plainly seen. All power of extension was lost, and the weakness of the joint made him liable to frequent falls. The following operation was performed:—An incision four or five inches long was made in the long axis of the limb, over the fractured patella, and the skin dissected off from the parts beneath; the fibrous expansion between the ends of the bone was then dissected off from the condyles of the femur, a slice of bone was then taken off from the free margins of the patella, two holes were bored through each fragment at a little distance from the margin, and strong fine silver wire passed through them. Forcible traction failed to bring the ends together, nor would the fragments touch when the lateral attachments of the patella were divided, so that it was found necessary to divide subcutaneously the whole of the rectus femoris muscle and tendon three inches from the upper margin of patella, a narrow-bladed bistoury being entered from the outer side of the thigh. By twisting the wires the fragments were forcibly brought into contact. Bleeding vessels were tied with catgut, incisions were made into the joint on each side above the patella for the passage of drain-tubes, and the limb was placed on a splint and inclined plane. A very small drain-tube was passed under the long incision, which was carefully brought together by carbolised silk sutures, holes being left to allow the silver wires to pass. The blood was well squeezed out of the wound made in dividing the extensor muscle, and a drain-tube introduced. Protective oil silk having been applied over the various incisions, carbolised gauze wetted with carbolic lotion was applied over a quantity of loose dry gauze to absorb discharge, and the limb, carefully wrapped in the usual gauze dressing, was placed on a McIntyre splint, kept well raised in bed. The case progressed uninterruptedly; there was no pain. Neither opium nor stimulants were required. The wounds remained perfectly aseptic, was perfectly drained, only a thin fluid escaping. The highest temperature reached was 100·4° F., and that only on one occasion. The operation was done on July 12th, all stitches removed by the 21st, and the drain-tubes finally removed on August 6th. Passive motion was then commenced. The patient left his bed on Sept. 5th. On the 27th the silver pins were removed under chloroform, and forcible flexion of the joint made as far as seemed prudent. The wounds left by the wires were quite healed by Oct. 8th. The patient was shown to the Society, and also a cast showing the limb before operation. He can now flex and extend his knee, and his joint is daily becoming more useful; he can walk without a stick, and can go up and down stairs. When flexed, his leg makes with the thigh an angle of 120°. The scars left by the different incisions can be seen, and at the point where the rectus was divided a depression may be felt. There is apparently perfect bony union of the patella, a slight groove on one side marking the point of original division. Mr. Bell described the antiseptic measures employed, and concluded by stating that there had been three cases of fractured patella operated on at King's College Hospital, the first being a recent fracture treated by Professor Lister, the second one by Professor Henry Smith, of old standing, recorded in THE LANCET, vol ii. 1878, p. 144.—At the President's suggestion, discussion on this paper was deferred until the next meeting, when Mr. Rose will read a paper on the same subject.

A paper upon the effects produced by the Passage of Gall-stones was then read by Dr. HABERSHON. (The paper will be published shortly in these pages *in extenso*.)—Dr. CRISP referred to a paper of his published in 1841, and thought that the author had not mentioned the fact that sometimes gall-stones can be detected by external examination; that often there is no jaundice and but little pain when the stones are small; and that the pulse is not accelerated. One case he recalled where there was extreme pain, but quite a slow pulse. He referred to the constant occurrence of gall-stones in cows and sheep, and the fact that they were met with in grain-fed beasts, but not in those fed wholly on grass.—Dr. F. DE H. HALL showed a large gall-stone measuring 2⅜ by 1¼ in., which had ulcerated from the gall-bladder direct into the duodenum.—Dr. MUIR had two cases at present under his care; in one the pain returned, and became more general after the patient had moved about contrary to advice. He advocated chloride of ammonium, nitro-hydrochloric acid, and tincture of belladonna (in doses of fifteen minims).—Dr. CRISP added that there was an important fact in the paper worthy of note—namely, the occurrence of partial and gradual dilatation of the duct, allowing of the passage back of the stone into the gall-bladder, thereby accounting sometimes for the temporary subsidence of symptoms.—Dr. J. BRUNTON men-

tioned a case where several calculi were passed, the urine becoming high-coloured and jaundice occurring alternately on several occasions. He had given the old turpentine mixture in this case. Gall-stones were far more common in women than in men—fully in the proportion of three to one; and he attributed this to the effects of tight-lacing.—Dr. HABERSHON in reply said that he had mentioned the fact of the possibility of sometimes feeling gall-stones. In one case a hard mass, thought to be cancer, proved after death to be the gall-bladder distended with 120 calculi. In ordinary cases the pulse is quiet, but those which he had referred to were extraordinary, and in them the pulse rate was increased. Chloride of ammonium was prescribed by the Germans; it had not answered with him. Mineral acids were not good in the acute stage, but subsequently. Although gall-stones were more common in the female than in the male sex, yet the most severe cases he had met with were in men.—The meeting then adjourned.

Reviews and Notices of Books.

The Anatomy of the Joints of Man. By HENRY MORRIS, M.A., M.B. Lond., F.R.C.S., Senior Assistant-Surgeon to, and Lecturer on Anatomy and Demonstrator of Operative Surgery at, the Middlesex Hospital. London: J. & A. Churchill. 1879.

A NEW work on the anatomy of the joints, extending over some 450 pages, will be a surprise to most members of the profession, who were scarcely aware that a comprehensive treatise, dealing thoroughly and only with the articulations, did not exist in our language. The most precise and detailed account of the joints and their movements which is accessible to the English student is contained in Professor Humphry's classic work on "The Human Skeleton," but even in this no notice is taken of the articular vessels and nerves. The importance of a correct knowledge of these to the surgeon is very great, and in the case of the nerves was shown in the most striking manner by the late Mr. Hilton, in his philosophic lectures on "Rest and Pain" at the Royal College of Surgeons. The appearance of a new work on the anatomy of the articulations is, therefore, of peculiar interest, and is most opportune at the present time, when the treatment of joint-disease is attracting special attention, and so many important changes therein are being introduced. We are especially struck with the fulness and accuracy of Mr. Morris's descriptions, and the skill and patience which he must have devoted to the dissection of the specimens from which his descriptions have been taken. It is not so much for the original observations that the book will be valued as for the minuteness and detail which make it an excellent work of reference. The movements of the joints and the physiological actions and uses of the various structures are ably discussed, and many of the remarks are very suggestive. We must, however, withhold our assent from some of the views which are put forth in opposition to those of the older writers, as, for instance, with regard to the *ligamenta subflava* of the vertebræ, and the *ligamentum teres* of the hip-joint. The insufficiency of the former to prevent the curving forward of the spine when the muscles of the back become enfeebled, or the intervertebral substances ossify, is surely no proof that they do not act in restoring and preserving the erect posture under ordinary conditions. Some reasons should, we think, be given for the assertion on p. 216, that the ligamentum teres is a superfluous and unnecessary structure, especially as in a later part of the book many experiments are detailed by the author himself in order to show its utility in certain positions of the limb. We venture to believe that a more extensive acquaintance with the mechanism of the hip-joint in various animals will lead the author to change his opinion, and bring him back to the views which are held by our greatest anatomical authorities. It could hardly be expected that Mr. Morris, as a pupil and friend of the late Mr. Hilton, should have pointed out that that great anatomist and teacher had pushed his well-known law on the nervous supply of the joints to its utmost limits, but it might have been mentioned that, as laid down, this law was not absolutely correct in all cases, and then the student would have been on his guard against its universal application.

The book is so valuable an addition to English anatomical text-books, and is so well written in general, that we have less hesitation in pointing out some particulars in which we think it might still be improved. We must take exception to the coloured lithographs with which the book is illustrated. Many of them are singularly inartistic, and in some the structures are drawn without proper regard to proportion. The representations of the bursæ in Monro's work are so absurd that we are astonished at their being copied in any modern treatise. The author, in his preface, rather deprecates any criticism of the drawings, "not possessing the power of using the pencil and the brush like my predecessor, Sir C. Bell"; but even had they displayed more finish and correctness they would still have been inferior in artistic merit to those in the Anatomy of the Expression. A judicious excision and compression of the text in some parts might be adopted with advantage. We could well spare the first page, which is made up of such passages as "He takes food because he must eat to live; but to eat he must move, and so even in this respect he moves to live"; and also the eloquent dissertation, with its delightful but by no means unfamiliar poetical quotations on the movements of the shoulder and elbow-joints in the expression of the passions and feelings. We fail to see the necessity, in an account of the temporo-maxillary articulation, of adding a tedious enumeration of all the muscles which are attached to the temporal and inferior maxillary bones, when we are expressly told that most of them have no influence whatever on the movements of the joint. Our last grievance is that the author uses his influence towards the perpetuation of such absurd and meaningless names as "synarthrosis," "amphiarthrosis," "diarthrosis," &c. These are quite unnecessary in any classification; they explain nothing; and, coming at the very commencement of a description of the joints, have probably deterred a large number of students from paying that attention to the study of the articular surfaces and their movements which their importance demands. They have been discarded by most recent writers and teachers, with whom real anatomical knowledge rather than mere text-book nomenclature should be a primary object, and we regret to find them in Mr. Morris's work again coming to the front.

A Treatise on Vocal Physiology and Hygiene. By GORDON HOLMES, L.R.C.P. London: J. & A. Churchill. 1879.

THIS book is well written, and gives evidence of great industry and considerable and varied learning on the part of the author. The early chapters deal with vocal culture as practised by the ancients, and many interesting facts concerning the great orators and actors of Greece and Rome are given. Next, the acoustic principles which are necessary to a proper understanding of the vocal organs are given; and then follows a detailed account of the anatomy and physiology of the larynx, and of the pharyngeal, oral, and nasal cavities. The chapters on Vocal Culture will be appreciated by professional speakers and singers, for we gather from them that hitherto many of the rules laid down by teachers of singing and others have been based upon a wrong appreciation of the physiology of the organs which they professed to train. The chapters on the influences of the mode of life upon the voice contain many valuable hygienic hints; and, although the professional reader will find nothing here with which he is not already acquainted, the lay reader will presumably learn much by its perusal. The work is in every sense a creditable one both to the publishers and the author.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 1, 1879.

TWO years have elapsed since Dr. BENJAMIN HOWARD, of New York, introduced into this country and demonstrated at many of our hospitals a method of performing artificial respiration, called by him "the direct method," for which he claimed several advantages over that recommended by the Royal Humane Society. The chief feature in the new method, as many of our readers will remember from Dr. HOWARD'S papers and illustrations in our pages, consisted in producing expiration by pressure on the false ribs, whilst he trusted to the resiliency of the chest-walls for the entrance of air into the lungs. As a result of a communication from the Royal Humane Society, a Committee was nominated by the Royal Medical and Chirurgical Society to investigate the comparative merits of the new method and that recommended in the widely-circulated and well-known instructions of the former body. Eighteen months after the formation of the Committee, a preliminary report has been presented and read, and considering the importance and urgency of the question, we cannot but express our surprise that so long a time should have been taken over the necessary experiments and observations which even yet are not concluded. Experiments on two bodies only, under conditions by no means favourable, have been made, and although the results which have been obtained are useful for comparison, they are far from conclusive in deciding the superiority of either of the two methods. Taking the figures of the Committee, there can be no hesitation in accepting as a fact that the Humane Society's method is the better, were there no other factor in the problem but the scientific question as to the amount of air which can be driven into and forced from the chest. Undoubtedly with a tube in the trachea a larger quantity of air is exchanged by the Humane Society's method—which is practically Dr. SILVESTER'S—than by any other that has been suggested. But experiments on subjects with a tube in the trachea are liable to grave objections, for there may be a block in the air-passages above the tracheal opening. It would, therefore, be a fairer test if in future observations (for the Committee have been reappointed) a mask were fitted over the nose and mouth, and the exchange of air by different methods then ascertained. Again, even granting that the comparative exchange under these conditions is still in favour of the method at present adopted, it by no means follows that a sufficient exchange is not secured by Dr. HOWARD'S plan, or the original one proposed by Dr. MARSHALL HALL. The first thing of importance in treating the apparently drowned is to empty the air-passages of any fluid they may contain, and to clear the path for the entrance and exit of the air, and this must be done before any attempt at artificial respiration be made. It is in regard to this that the directions of the Humane Society are so defective, for in them we are merely told to cleanse the mouth and nostrils, and no recommendations are added to facilitate the escape of fluids from the mouth. By Dr. MARSHALL HALL'S method of turning the patient over on his side, as well as by the prone position with a roll of clothing under the epigastrium, as suggested by Dr. HOWARD, this important preliminary is effectually secured; and we trust that in this point at least the Humane Society will adopt the recommendations of the Committee. As a matter of fact, we believe that the *employés* of the Society always roll a patient over on his side on the MARSHALL HALL plan before commencing the process of artificial respiration introduced by SILVESTER. But the public generally follow the printed directions, and no mention of such a procedure is to be found therein. In the next place, the position of the head and neck in relation to the trunk is very important, so that the superior aperture of the larynx may be kept as widely open as possible. The Committee wisely recommend that this be altered in the diagram of the Humane Society in favour of that depicted by Dr. HOWARD, in which the roll of clothing is placed much lower, and the head is more fully extended. It is obvious that the more extended the head and neck are placed in regard to the trunk the more readily will air pass into the windpipe, whilst by flexing the chin upon the sternum its entrance can be effectually prevented, no matter in what way the attempt at artificial respiration be made. By elevating the chin when the mouth is closed the hyoid bone and the base of the tongue are drawn forward, and are removed from the glottis as completely, and far more readily, than by the clumsy and difficult plan of opening the mouth, withdrawing the tongue, and fastening it to the chin by an elastic band. We doubt, indeed, whether this recommendation has ever been carried out in the actual treatment of a person apparently drowned. We have seen surgeons pull forward the tongue with forceps in cases of danger during the inhalation of anæsthetics, but we have always considered it a very rough proceeding, and we are glad to hear from Mr. CLOVER that the elevation of the chin is quite sufficient and altogether preferable. In emergencies like the resuscitation of the apparently drowned, neither forceps nor elastic bands are likely to be forthcoming, and if the tongue be drawn forward it will necessarily require the attention of one person to keep it in this position, and in many cases the early steps in the recovery of the patient must be performed solely by the one individual to whom the rescue is due. Other points of importance are the comparative ease with which the two methods can be performed, and the facility with which they can be learnt and appreciated by non-professionals, for it is rarely that the treatment of these cases devolves upon the physician or surgeon until either recovery is practically assured or wellnigh impossible. The Committee give us no information whatever on these important particulars, but we trust that in their final report they will think them worthy of some notice. We should ourselves hesitate before advising the general adoption of Dr. HOWARD'S plan, and the instruction of boatmen, policemen, and others therein; for, as practised by Dr. HOWARD himself, it does not seem to us entirely devoid of danger. We cannot but fear that broken ribs would be an occasional accident, especially if the cartilages were ossified; although we are told by Dr. HOWARD that this has never occurred in a long experience

in New York, where his plan is now almost exclusively followed. A combination of the three methods—namely, MARSHALL HALL'S for facilitating the escape of fluids from the mouth, SILVESTER'S for promoting the ingress and egress of air, and HOWARD'S as far as the extended position of the head and neck is concerned—is probably superior to any one method, when adopted in its entirety and to the absolute exclusion of the others.

A SERIOUS reflection sometimes forces itself on the mind of a medical practitioner, suggesting the question how far he is responsible for the effects of his advice. Whether, in fact, he is accountable to his own conscience of right, if not to society, for the use made of his counsel, or the neglect with which it is too frequently treated. Let us at once confess that we cannot understand how a man who is possessed with any honourable sense of self-respect can continue to occupy a position in which his counsel is systematically neglected. There *may* be circumstances under which the retention of office in the face of contumely or courteous indifference is consistent with the instincts of honesty, and the impulses of manhood, but we have failed to recognise them, and have certainly no desire to make their acquaintance. If the professor of any science or art finds that his services as a skilled counsellor are not so appreciated as to be acted upon, it seems to us due to his credit, and the only course compatible with a proper adjustment of the responsibilities of life, to resign. Suppose, for example, a man is connected with an institution which is not administered in the manner which he deems advantageous to the community, is he to retain his connexion with the establishment? We think not. The act of giving the sanction of his name and the weight of his qualifications to a system he disapproves or distrusts, is a breach of faith with the State from which he has derived, indirectly it may be, the dignity and rights of a practitioner. It seems sometimes to be forgotten that when a medical man obtains a degree or licence by diploma he enters virtually into an undertaking with the community, through one of its executive authorities, to exercise the functions of his calling for the public good. If this view be correct, and we are convinced it is, no member of our profession can be justified in maintaining his connexion with an institution as to the management of which he is dissatisfied. The same conclusion is the one at which we arrive with respect to the responsibility of men of all grades in the profession who on any grounds continue to hold office when their conscientious ideas of duty cannot be carried into effect. It is better when that point is reached to retire than to cling greedily to the emoluments or prestige of a position wherein the discharge of professional obligations has become a farce.

It may be thought that we seek to draw the line of duty so tightly around the practitioner as to fetter his individual judgment. Our sympathies are all with the liberal side of these questions, but we cannot admit the "right of private judgment" to override the interests of society or the profession, and it clearly reflects discredit on our cloth and lowers the estimation in which medicine is held by the public, when members do not act up to the level of obligation marked by common sense and public prudence. It would be well if the sense of fellowship could be deepened and extended in our midst. No man ever prospered permanently or achieved a genuine success in his profession, who did not command the respect, even if he failed to win the regard, of his brethren. Every now and again we hear of physicians and surgeons who are said to have "compelled" the recognition of their merits by an appeal to the public. This roundabout way of reaching the fountain-head of honour—undoubtedly professional repute, by which we mean repute in the profession—is not only erratic, but in the end disappointing. There is sure to come a time when the reputation of a man thus climbing the pinnacle has to pass in judgment before his peers, and when, as a result of that ordeal, the judgment of the public is exercised, the disgrace endured is of a nature to excite pity. It follows that men animated with the laudable desire to succeed will do wisely to see that they seek and pursue their object in the broad light of professional cognisance, and in such a fashion as the profession approves.

These remarks are suggested by a variety of incidents and occurrences of recent date, but are representative of perennial sources of regret and uneasiness. We are perpetually trying to find a way out of difficulties, and to devise some special scheme of treatment for "cases of conscience"; but we do not sufficiently appreciate the need of earnest co-operation for the common good. There is a growing love of independence among us, which as a rule leads the best minds astray. If an outsider were asked to define the distinctive characteristic of professional life in the present generation, as compared with the past, he would probably point to disintegration, and a consequent state of things in which every man does that which seems right in his own eyes without reference to the opinion or feeling of his fellows. We fear this estimate of the trait which marks professional progress would be a just one. Never, perhaps, was there a time in the history of medicine when more energy was displayed by individual practitioners; but seldom, if ever, have there been fewer tokens than at present of an all-pervading influence. This may be partly due to the fact that what used to be professional influence is now centred and absorbed in the interests and influence of corporate bodies. However that may be, it is a fact that, albeit we are more peaceable and dwell together with less frequent differences and bickerings than contented our predecessors, we are neither so united nor so well-disciplined as they, and hence probably it comes to pass that men who doubtless mean well do badly, and those who need to be led go independently astray. To the increasing lack of sympathy and practical fellowship most of the worst faults of professional policy may be traced, and the neglect of obvious obligations of personal responsibility is among the number of the social and professional evils that ensue.

EXCEPT in its relation to writer's cramp, the act of writing has received comparatively little attention from physiologists or pathologists. Yet it is a subject of much interest in its normal and in its abnormal condition. In both aspects it has lately been studied by Dr. ERLENMEYER, of Bendorf, who has published an instructive and well-illustrated treatise upon the subject. The first question regarding its physiology which demands attention is—Why do we write from left to right? In this respect our practice is the same as almost

all the Indo-Germanic races, and is the opposite to that of almost all the Semitic races. The latter are accustomed to place their (unjoined) letters from right to left, or, as we should say, one behind the other. In both races, however, a few exceptions have existed. Among both Greek and Etruscan inscriptions, instances have been found in which the letters are arranged from right to left, and it is probable that by some Greeks both modes of writings were combined, being employed in alternate lines, one commencing immediately beneath the termination of the preceding line.

The direction in which we are accustomed to write is that of abduction of the arm from the body—a centrifugal movement. It is obvious that it is only in this direction that free movement is possible, since in adduction a centripetal movement is arrested by the contact of the arm with the trunk. The convenience of movement in this direction is exemplified by the attempts of a child to write with the left hand; if told to do so the characters are instinctively traced in abduction—the writing is "backwards." It is seen also in the attempts of persons who have lost the use of the right hand; with the left they can write much more readily in abduction in "mirror-writing" (i.e., in characters such as ordinary handwriting presents if viewed in a mirror), than in a movement of adduction, and a comparison of their writing in each of these modes will show that the former is freer, and the letters better formed. A well-known example of this left-hand abduction writing is presented by the Codex Atlanticus of LEONARDO DA VINCI. It has commonly been assumed that his style was adopted in order to conceal the work from superficial readers by making its perusal a matter of difficulty. But there exists in the National Library at Naples a diary of a priest who visited LEONARDO in the last years of his life, and noted that the painter had lost the use of his right hand.

These facts suggest the question—Did the old Semitic nations, in writing from right to left, use their left hand, or employ their right, as do the modern Jews in writing Hebrew? On the physiological grounds already mentioned the former hypothesis is highly probable, and after much inquiry Dr. ERLENMEYER has come upon evidence in proof that this was the case. In a passage in the Talmud it is enjoined that certain inscriptions of prayers should be written only with the right hand. Hence it has been assumed by commentators that these inscriptions were written commonly with the left hand. We are surprised that Dr. ERLENMEYER has not adduced the evidence which is to be gleaned from the Hebrew books of Scripture in support of the theory of original Hebrew left-handedness. By both JACOB and JOB pre-eminence was given to the left hand. The former, we are told, "wittingly" placed his left hand on the head of his eldest grandson. Although, after the exodus from Egypt, the right hand appears to have been chiefly used, yet left-handedness was certainly very common, for in one army of twenty-seven thousand men, of the "chosen men" of the army, seven hundred were left-handed, and the context would almost suggest that these were all inhabitants of one town—Gibeah. Left-handed Hebrews appear to have possessed, as a rule, more than ordinary skill in warfare. If this view of their original left-handedness is correct, Dr. ERLENMEYER assumes that they must have been "right-brained" according to current theories, and that aphasia would have been met with among them in association with left hemiplegia, instead of with right.

Dr. ERLENMEYER concludes, further, that our left-brainedness is the consequence of our right-handedness, and that the latter (and therefore the former) is to be ascribed to our practice of writing from left to right. This, however, cannot be accepted without hesitation. The history of the Hebrews, as given in the Bible, seems to show that they became a right-handed people in spite of their handwriting continuing to be from right to left.

An exceedingly interesting question is, whether the "mirror-writing," as BUCHWALD has termed it, or left-handed abduction writing, as ERLENMEYER prefers to call it, is employed by paralysed persons, such as LEONARDO DA VINCI, intentionally, as the most convenient; or whether it is a necessary result of a definitely localised cerebral affection. A case, most instructive on this point, has been recorded by BUCHWALD (*Berlin. Klin. Wochenschrift*, 1878). A man with right hemiplegia and a mixed form of aphasia could not use his right hand, and attempted to write with his left, and wrote his name with great readiness from right to left in mirror-writing; as he did also the numerals from 1 to 10, except 8. At first he could write in no other way. If he attempted to copy his name and letters, written correctly, he began correctly, but awkwardly, and immediately relapsed into the mirror style. At last he wrote 1, 2, 4, 6, 8, and 9 correctly, but 3, 5, and 7 still in mirror-writing. During six months the aphasia and agraphia gradually lessened, but the tendency to mirror-writing continued. He said that he could not write otherwise with his left hand, but that, could he use his right hand, he should write correctly. If he tried to help his right hand by means of his left, some letters were written correctly, others backwards. ERLENMEYER assumes that in this case there was a paralysis of the centre for the movement in writing of both hands from left to right, and the case affords strong evidence of the existence of such a centre. When there is damage to this centre the writing backwards is a necessity. In other cases the style is voluntarily adopted on account of its convenience, and to this form alone ERLENMEYER would restrict the term "mirror-writing," preferring to call the compulsory back-writing "retrography." His own observation has furnished him with no example of the compulsory variety—only of the voluntary form, in which such writing is more convenient and better executed, and of this he figures a striking example. BUCHWALD has pointed out how frequently, as already mentioned, children who are learning to write, if they attempt to write with the left hand, fall insensibly into retrographic style.

ERLENMEYER has carefully analysed the mechanics of the act of writing, but in this respect he has little that is new to add. The arrangement of the letters in straight lines is an additional artificial method. The natural line of letters is a curve, a part of a circle, the radius of which is the distance from the point of the pen to the fixed point of the arm. He emphasises with justice the double element in writing—the mechanical and psychical influences,—to the latter of which the idiosyncrasies of the styles of various individuals are due. The distinction of these elements is of great importance for the interpretation of the pathological

changes in handwriting, to his description of which we propose to return in another article.

THE 1st of November is now upon us, and the winter session of the Army Medical School at Netley begins before a class composed of candidate medical officers for the Naval and Indian services, the Army Medical Department (except probably by the voluntary attendance of a small number of men already in the service) being unrepresented. The still deferred publication of the long-looked-for and frequently-discussed Army Medical Warrant is the only cause of the absence of candidates for the Army Medical Service from the special course of instruction which begins this day at Netley. One might smile at the irony of the antiphrasis which applies to that establishment the title of "Army Medical School"—*lucus a non lucendo*—were it not that the interests, departmental, professional, and public, involved in the proper supply of trained military surgeons are so weighty and serious that the prospect of even a few months' extension of the present under-handed and discontented condition of the Army Medical Department forbids one to indulge in even a passing smile. Wherever the responsibility for this delay and non-fulfilment of promises, direct and implied, may lie, the obstructive authorities must be well aware that the schools and civil profession are, on the whole, favourable to the terms proposed by the Commission, and willing to give them a fair trial. Any curtailment or abridgment of those terms, however, or even much further persistence in the fencing and dallying with them, which have already caused such weariness of spirit, will do much towards altering the present favourably expectant attitude of the profession.

Meanwhile the difficulties of the present state of affairs are steadily and rapidly increasing. The hope of the possibility of the relief in due course of medical officers who have completed, or, as in many instances is the case, have exceeded, their prescribed five years' time of service in India has utterly vanished, passing away as "the baseless fabric of a vision." In estimating the present deficiency in the home establishment of medical officers as one hundred, we believe we are rather under- than over-stating the actual fact. A very large proportion of the medical officers at home consist of men who have very recently returned from foreign service; many of these with health and energies seriously impaired, and requiring for their re-establishment rest and residence in a home climate. Rest in the shape of leave, except on medical certificate, has become a thing of the past, and is likely to continue among "things hoped for" in a very hazy and indefinite future; and home service, as it at present exists, with its many cross currents of official worries and cares, is by no means a harbour of refuge. Under such circumstances the reserve stock of medical officers for purposes of relief is practically non-existent, and until new and healthy blood be plentifully transfused from the schools into the exhausted system of the Army Medical Department, and steadily maintained, healthy circulation and transfer between home and foreign service cannot be re-established.

THE untimely death of Inspector-General Dr. WILLIAM DOMVILLE, who was generally regarded as a probable nominee to the office of Director-General, when in due course that post is vacated, brings to the front a very urgent question—viz., Who is to be his successor? The present occupant has been ten years and a half in possession, that is about one-half of the period since the great Russian war.

This appears to be a critical juncture, demanding a retrospect of the service through the past ten years, in which the active medical list of the service has gradually sunk from 535 to 416 officers, without showing signs of revival even during the recent closure of the portals of the army. At the end of 1869 there stood on the full-pay list the names of 8 inspectors-general and 13 deputy inspectors-general, followed by those of 514 of various junior ranks. Now, at the end of 1879, there stand on it only those of 1 inspector-general, 12 deputy inspectors-general, and 401 in the several ranks of surgeons. The decadence must, we fear, be attributed to two causes—namely, maladministration and decreasing popularity—of which the last may or may not have been the result of the first cause; for, constituted as our profession is, any injurious unfairness operating on the senior members usually pervades the ranks of the juniors, and begets a want of confidence from the dread of disappointment towards the end of a man's career. Distrust has been caused by circumstances affecting the service, and by a succession of Orders in Council, arbitrary and oppressive to individuals, and unfairly applied; being made to fall with rigour on deserving and able officers. For instance, we may name an Order in Council of 1869, which ordained that "to qualify for the rank of Inspector-General a deputy shall have served on full pay five entire years, of which three shall have been in charge of foreign hospitals or in fleets." From a wish to avoid the very shadow of a charge of unfairness, we will not allude to cases in which this Order in Council has been disregarded; or to those unfortunate officers who have suffered by, or have succumbed to, a partial and too rigorous interpretation of it. Let it suffice to remark that, as the direct result of that step of administration, it now follows "that while the normal standard of inspectors-general is four, there are actually three vacancies from the want of qualified officers to take the rank," which, we believe, to be the severest judgment the irony of fate could impose. To this it may be added, that the state of the list precludes the promotion of three fleet-surgeons to the rank of deputy inspector-general, whereas twelve is the regulation number.

Let us next note the operation of a later Order in Council of 1875, ordaining that "the several ranks of inspector-general and deputy inspector-general shall be retired, compulsorily, at the same age of sixty years"; which was enacted contrary to every practice and tradition held to be the safety-valves of the Naval Service in general. The consequence of this is now evident in the increasing glut of senior officers, burning with anxiety when each vacancy occurs, suffering from acute disappointment on finding that they are not selected, and carrying this sentiment of a baffled career into extra-service society.

This ill-advised Order in Council was at first acted on retrospectively, by which step the existing inspectors-general with some deputy inspectors-general were remorselessly shelved, without even the moderate scale of compensation for their loss of service between sixty and sixty-five years of age. The naval officers thus aggrieved have seen that their junior brethren, who have been benefited by promotion at

their cost, have been retired, without serving in the rank, on higher emoluments than those allotted to themselves.

So far as concerns the public purse, there are on the retired list, on a high scale of pensions, eight officers of the rank of inspector-general, and five of that of deputy inspector-general, many of whom could still sustain the responsibilities of the service.

Annotations.

"Ne quid nimis."

SANITARY SCIENCE.

THERE exists in the minds of some men a marvellous faculty for the invention of high-sounding words and big phrases wherewith to clothe new theories and curious problems of social life. The prolongation of life is naturally supposed to follow on the prevention of disease, and hence, as in the latter is included so-called sanitary science, this science has of course a charm for the many who have sense and education enough to think and to know that what we are inclined to do is not always that which is quite the best for us. But there is moderation in everything; and it seems that, as the late Charles Mathews used to say, "the happy moment has at length arrived" when we should descend a few steps from the top of the pedestal of perfectness, and finish, or endeavour to finish, the base, before setting to work on the superstructure of the fabric. It may be taken that the most of us are by this time pretty conscious of many shortcomings as to sanitary arrangements in our households, most of which cause a large percentage of the sickness as well as the mortality with which we are afflicted in this nineteenth century. These imperfections are not confined to the houses of the poor, because the events of the last seven or eight years have sufficiently proved the contrary. In point of fact, though valuable lives have during this period been lost, from diseases that we know perfectly well to be preventable, we are even now only beginning to make a systematic inspection and reformation of our homes, to see if even rudimentary ventilation is carried on from below upwards, that drains do not unnecessarily honeycomb the bases of our kitchens and sculleries, that the drinking-water and the cesspool are at all events fairly removed from each other, and the receptacles for each so constructed that a commingling need not be a matter of course. We are indeed in such matters now about commencing to do little things well, and the well doing of these little things is in all probability saving many lives, and preventing much sickness yearly. In writing thus we allude to the upper and middle classes only, for we cannot flatter ourselves that any of the artisan, labouring, or rural classes have reached even this very moderate degree of knowledge. And if such be the case, we, having advanced so far beyond them on the sanitary road, had far better go back, or wait until they have reached us, than hasten, or pretend to hasten, on in the path of so-called excellence and perfection. What avail practically the rhapsodies of a Carpenter or a Richardson, however high-flown or mellifluous they be, about "Salutland," "Hygeiopolis," and the like, when the Home Secretary and his colleagues are wading through the difficulties of an Artisans' Dwellings Act, and model lodging-house designers are endeavouring to solve the difficult problem of providing men who desire to live near their work with the means of doing so in a reasonably decent, moral, and healthy fashion. The events of the last week at Croydon make us think that, in sanitary as in other questions, we should, at all events, try to be practical and concise.

As ingenious addresses, we have to thank Drs. Richardson and Carpenter for their speeches last week at Croydon, and do so cordially and sincerely. But, to our way of thinking, the era has not yet arrived when we can afford sufficient time to sink the practical aspects of sanitary work, so as to rise into dreamland to the extent that the Fellows of the Sanitary Association would have us do, and so we must still plod on until typhoid is as preventable as scurvy, and cholera so much in command that we may, humanly speaking, almost say, "Thus far shalt thou go, but no farther."

SUBURBAN PLAGUE-SPOTS IN THE THAMES VALLEY.

THE *Richmond and Twickenham Times* is doing good service to the cause of sanitation in the valley of the Thames by exposing and calling public attention to some of the worst of the plague-spots that still exist, and are a source of continual danger to the health of many favourite suburban residential localities. The sanitary condition of certain portions of Isleworth has long been a standing disgrace to the urban sanitary authority of Heston and Isleworth, which was created a Local Government district more than four years ago. In the Irish quarter of the village the dangerous overcrowding and the utterly uninhabitable condition of many of the houses are notorious, but no attempts are made to abate the nuisance, which was recently and graphically described by our contemporary. Other parts of Isleworth, especially a spot locally and appropriately known as the Rookery, have been pointed out as plague-spots, which at any time may become hotbeds of infectious disease, and actively dangerous to the public health. The danger to public health, however, is but one of the evils arising from the degradation inseparable from living in such hovels as those in Isleworth, to which attention has once more been called. It is the permitted aggregation of human beings in such hovels, almost more than any other cause, that fills our workhouses, lunatic asylums, and prisons. It is a favourite theory of those who profess to look upon such plague-spots as inevitable, that they are solely due to the ignorance, improvidence, and vicious habits of the residents. However this may be, it is quite clear that the owners of such properties, who make large profits by means of the overcrowding which they sanction, are responsible for the dangerous and insanitary condition of their houses. It is none the less clear that local sanitary authorities are bound to hold owners of such plague-spots to their responsibilities, the neglect of which is a continual source of danger to the health of the surrounding neighbourhood.

THE PRECURSORS OF CANCER.

THERE are few subjects that should more earnestly engage the attention of the practical surgeon than that of the relation between malignant disease and antecedent inflammatory or hypertrophic changes of an apparently simple character. For no matter whether he regard a cancerous growth as of purely local origin or as the local expression of a general disorder, he knows well that complete and early eradication of the primary growth can alone be of avail in arresting or removing the disease. This is one of the great lessons of the day, and the misfortune is that, knowing it well and taking it to heart, the surgeon is so often baffled, it may be by the spread of the cancer far beyond the reach of his knife, it may be by the local extension of the disease being so slight and insignificant as to be overlooked by the unaided eye. There is, to be sure, very much still to learn about cancer, but assuredly this can be said to the honour of modern surgery that many a life has been spared, or at least prolonged and robbed of pain, by strict attention to the known facts of the growth and spread of this disease.

Of late years much light has been thrown upon the

starting-points of cancer. We need only refer to two of these, and one more particularly at present, for England may claim the credit of both discoveries. They are instances in which cancer has been found to be preceded by changes which, clinically at least, run for years a slow, mild, but intractable course. Ichthyosis of the tongue, as it is called, is a hyperplasic development of the lingual epithelium, which is almost invariably followed, somgtimes after a long lapse of years, by epithelioma of that organ. Eczema of the nipple and mammary areola is liable similarly to be followed by cancer of the gland itself, as first pointed out by Sir James Paget. The researches of Mr. Butlin have shown how the change is brought about in its minute details. Now the importance of the recognition of these precursors of destructive malignant disease is obvious. If the surgeon could be *certain* of the sequence it would be incumbent on him not to wait until the cancer had fully declared itself; and the great difficulty lies in knowing when to act, as was pointed out by one of the speakers at the meeting of the Clinical Society the other night. How long should he permit this superficial local process, the marked feature of which is its intractability, to go on before eradication? Indeed, if he do eradicate it, will he have taken away all chance of the supervention of cancer? Who can tell? At present, in this matter as in so many others, we still require more light. That the light will one day come there is ample hope. The attention of surgical science being directed to these undoubted facts of sequence, it may probably one day solve the difficulty. If, indeed, Dr. Thin's pathological explanation prove correct—viz., that the process in and around the nipple is cancerous *ab initio* (and, interesting as the speculation may be, it seems almost a matter of terms)—the surgeon would have even greater justification in sacrificing a gland, the function of which is no longer active, to save from greater ill. As Mr. Lawson pointed out, this same principle obtains in daily practice in ophthalmic cases, where an injured eye is removed at once to save the other from destruction by sympathetic inflammation. The case brought forward by Mr. Lawson, and the instructive debate that followed on it at the last meeting of the Clinical Society, have once more raised this question, and have given rise to these brief comments.

THE SCHOOL BOARD AND SCHOOL EPIDEMICS.

THE serious outbreak of measles and scarlet fever in the neighbourhood of Fetter-lane, officially announced by the medical officer of health of the City, will tend to confirm some of the remarks made in the course of the report on the sanitary condition of the Italian quarter recently published in these columns. Fetter-lane is immediately opposite Leather-lane, where the Italian quarter commences, and where there also exists an epidemic of measles. These facts are probably intimately connected; and while we pointed out the sanitary defects on one side of Holborn, we have in the last report of Dr. Saunders an eloquent exposition of the state of affairs on the other side of the thoroughfare. Here he found that out of 129 infants attending the Greystoke-place Board Schools, 49 were absent from illness. Among the older children there were 23 out of 130 boys and 28 out of 82 girls also away through illness. The master was away through illness, while the governess and a pupil-teacher were suffering from sore-throat and "other symptoms which suggested the prevalence of zymotic poison in the schools." The water-supply was stopped in the lavatory, the closets were in a filthy and dangerous condition; but the disposition of the London School Board seems to be even a graver and more dangerous matter. The medical officer had recommended the closing of the school for one month, and its fumigation, but this the School Board refused to sanction. They ordered the fumigation of the school without interrupting the course of studies. We need scarcely insist on the absurdity of such a proposition. As fast as one room had been purified it would be infected by the children coming into it from another room which had not yet been fumigated. The whole building must be done at one and the same time. Then the School Board imagine they have solved the difficulty by giving instructions that children coming from infected houses are not to be admitted, losing sight altogether of the difficulty, indeed the impossibility, of carrying out such orders. How often are the children aware of the dangerous condition of the homes in which they live? A clause in the Public Health Act of Ireland, which imposes a penalty of forty shillings for sending to school children likely to carry infection with them, was submitted to the London School Board, but they replied that the application of such a law would be of no practical use. What, then, does the School Board propose? By refusing to close the school it renders thorough disinfection impossible, and it repudiates any really energetic measures to prevent the attendance of children who live in fever dens. It seems as if this body, which has in hand the education of London, requires itself some education in the elementary principles of hygiene. Evidently, when an epidemic breaks out among school children, the school should be immediately closed for as long a time as possible, thoroughly disinfected, and when reopened no children should be admitted before their homes have been visited and proved free from infectious disease.

INFANT MORTALITY IN AUSTRALASIA.

THE vital statistics for 1878, issued by the Registrar-General for Queensland, are in a great measure free from the defects of arrangement and mode of computation which render so large a proportion of the statistics published in our various colonies practically useless for comparative purposes. The Annual Report for 1878, which has recently come to hand, contains some valuable statistics of infantile mortality in Australasia. It appears that during last year the rate of infant mortality in Queensland, measured by the proportion of deaths under one year to births registered, showed an unusual excess, and was equal to 167 per 1000, whereas in the nine preceding years it had averaged but 124, and ranged from 99 in 1871 to 153 in 1875. In England and Wales the rate of infant mortality last year did not exceed 153 per 1000, and was 14 per 1000 below the Queensland rate. The importance of infant mortality as a test of general sanitary condition invests these statistics with especial interest. In the report before us figures are quoted from the Victorian Year Book, showing the following average rates of infant mortality in the various Australasian colonies during the eleven years 1866-76:—Tasmania, 100; New Zealand, 103; New South Wales, 105; Victoria, 125; Queensland, 127; and South Australia, 156. The Registrar-General of Queensland calls especial attention in his report to the excess of infant mortality in 1878, particularly in Brisbane, where the rate was equal to 213 per 1000, and adds that "measured by its infantile mortality, the metropolis of Queensland is more unhealthy than the most unhealthy of the large towns in England." In the whole colony, exclusive of the Brisbane metropolitan district, infant mortality in 1878 averaged 156 per 1000, slightly exceeding the rate that prevailed in England and Wales, which can scarcely be deemed satisfactory in a new country, where the population is almost exclusively agricultural, and free from the evils of overcrowding which are so fatal to infant life in the urban population of England and Wales. We shall hope in a future report to see an analysis of the causes of deaths of infants in Queensland, which would throw much light upon the excess of infant mortality in that portion of Australasia.

ALCOHOLISM IN THE CHANNEL ISLANDS.

IT appears that the time of harvest in Jersey, and to a greater or less extent the other Channel Islands, almost always gives the coroner an additional amount of work. The *British Press and Jersey Times* records that "it is the habit of our agriculturists, when a grand threshing is taking place, to supply spirits and cider *ad libitum*." No check is put upon the consumption; but the worst aspect of it is that the spirits dispensed are, in the vast majority of cases, chiefly compounded of new German spirits, mixed with some inferior French brandy, coloured with burnt sugar or something equally harmless. "German spirit is little better than rank poison." So proceeds the evidence adduced at an inquest held recently at St. Heliers on the bodies of Mercier and Pincemain, both of whom died from the effects of alcohol imbibed during threshing. It seems that during this particular season a number of Frenchmen emigrate from the mainland (as do the Irish from our Emerald Isle to England), drink as much as, but are taken less care of than, the Jersey labourers, who, having friends at hand, are consigned to them when intoxication threatens to have serious results. But the unfortunate Frenchman, having no such friends, is consigned to the nearest barn, and left to sleep off his drunken fit, or, as occurs almost regularly in two or three instances, forms the subject of an inquest. In the cases to which we refer, the surgeon who had made the post-mortem examinations informed the jury that within the last two or three years he had had a similar duty to perform in like circumstances, "in some dozen instances." All familiar with the kind of alcoholic drinks, as well as the varieties of tobacco, ordinarily consumed at St. Heliers, and in the island generally, will know that it is the quality far more than the quantity of liquor imbibed which tends to produce these miserably unhappy results. And hence it is a great pity on this, as on many other accounts, the legislative arrangements that obtain in the island are not more analogous to those of the United Kingdom, inasmuch as St. Heliers, Peter Port, and the other towns are becoming rapidly Anglicised.

THE DUBLIN SANITARY COMMISSION.

IN THE LANCET of Oct. 11th we did our readers and ourselves the pleasure (shall we say the honour?) to hail in print the advent of a Dublin Sanitary Commission, first discussed in 1874, and now a stern reality in 1879. Having welcomed the coming, it is but fit and proper that we should in due form speed the parting guests, leaving all that has been said and done to be summarised and criticised in detail in the forthcoming official report. Having some suspicion as to the sort of inquiry that would be held, and the kind of evidence likely to be adduced, we contented ourselves mainly with the report of a daily contemporary, who seems to have taken very minute notes of all that transpired during the protracted inquiry which, according to the senior Commissioner, has "had no parallel." It may be remarked that its length was naturally much influenced by the action of the Commissioners themselves. We have endeavoured, with perhaps imperfect success, to wade through an enormous amount of evidence, good, bad, and indifferent, relevant and irrelevant, that if correctly reported, as we have no reason to doubt it is, leaves us in the position which to wonder at the most—the cool assurance with which the witnesses propounded their opinions before the Commissioners, or the patience with which these latter listened to tautology, repeated day after day, the chief variations being that, one witness commenced where his predecessor left off, and worked backwards in the track; the third man did the reverse, and so on. We are curious to know how, when the Minutes of the evidence reach Whitehall, they will be dealt with by those officials appointed to prepare such articles for the press. As matters now stand, confusion seems worse confounded.

Some few practical efforts seem, however, to have been made to get together the opinions of experienced men. Mr. Young, inspector of nuisances in Glasgow (a city that has always endeavoured to work in the right direction as to such matters), has recently inspected Dublin, particularly the neighbourhood of the Liffey and the poorer quarters most requiring attention, and considered, among other reforms, that the pail system should be adopted, though, curiously enough, as Mr. Rawlinson says, there is an abundant supply of water close at hand for the perpetuation of removal by water. Perhaps the most valuable *résumé* of evidence will prove to be that of Mr. James Boyle, C.E., secretary to the Public Health Committee, who, on the eleventh day of the inquiry, read an exhaustive statement embracing all the points touched upon in his evidence. We hope that this document, in *verbatim* form, will find a prominent place in the Report, as well as in the Minutes.

ENTERIC FEVER IN OFFICIAL RESIDENCES.

IT would appear that we have not yet exhausted the list of unhealthy official residences in which, during their terms of duty, combatant or civil officers of various grades are compelled to work or to live. Sundry reports have just reached us that, if true, reflect most unfavourably on those who are responsible for the officers' quarters at Haslar Hospital. We have heard on very good authority that the sanitary state of the house in which the late Inspector-General W. T. Domville resided when performing his official duties is most unsatisfactory. The drains are said to be leaky, and, as a natural consequence, foul smells permeate many of the rooms continually. We are not aware whether this condition of things has existed for some time or not; but the smells were so marked that they are said to have attracted the notice of his brother (who, as our readers know, is a retired naval officer), and that he has requested, or intends to request, that inquiry may be made into the matter.

It cannot, of course, occasion the smallest surprise that many, if not all, of the houses in these old navy yards at Chatham, Haslar, Plymouth, Pembroke, Deptford, &c., are riddled with old pervious drains. But so much the more important is it that they should be strictly and periodically examined. If this report should prove to be true, it will exhibit another instance of a valuable life thrown away through official want of care and foresight.

SEASIDE PAROCHIAL RELIEF.

THE guardians of the City of London and Chelsea Unions, as well as several other parish authorities, have, during the past six months, been occupied in discussing the desirability of sending their sick and weakly poor to the seaside, and of establishing a building suitable for their reception and maintenance at Margate or some other place at a convenient distance from the metropolis. The principle of the thing should and does receive our hearty and cordial support. It is a duty in relieving these paupers, and especially those of tender years, to endeavour to treat them in such a manner as shall render these juniors as quickly as possible useful members of society, so that the rates may be no longer burdened with their maintenance. And, of course, if that end can be accomplished, economy is the inevitable and satisfactory result. It is, therefore, disappointing to find that a vigorous and prolonged effort by the guardians of the City of London has as yet proved abortive, for, at a meeting held on the 16th of September, it was resolved to adjourn *sine die*

the discussion of a plan having for its object the purchase or rental of a building known as Hurst Court College, close to Hastings. The cost of the property would be about £7000, and the buildings would accommodate 100 inmates. The report was influentially signed, and very sound reasons were given for its adoption; but the economists on the Board—a noun of multitude—objected, because "Hastings was an out-of-the-way place," and because "the air of Margate was much better than that of Hastings." It appears that the Chelsea guardians have commenced the seaside plan for their sickly children, but on a limited scale only at present, some being sent to Mr. Perry's establishment at Margate, and some to the Royal Margate Infirmary.

THE "CURE" MANIA.

IN Germany they call every system of treatment which can be done into a marketable form a "cure." There are "salt" and "grape" cures and cures of every name and class imaginable. Now it is to be anticipated we shall have "the lemon cure," and another for which no formal name has perhaps been yet devised, but which will be reported as efficacious in the treatment of consumption. Each new discovery, which is generally destitute of the smallest claim to novelty, is duly chronicled by the lay press, and finds its way into the English news channels, where it not uncommonly suggests a "subject" to some distressed leader-writer. The public should be on their guard against the exciting stories of "cure" which arise from this source. The professional men who originate these wondrous sensations do not mean to imply that the methods of treatment they adopt are really better than others. They are simply called "cures" in accordance with the fashion of the day, and a certain tradition, probably suggested by experience, that what is called a cure will be sure to cure somebody of something. The "lemon cure" is as old as the hills. A liberal use of fresh lemons is often very useful, particularly to persons subject to rheumatism. This has been perfectly well known for an indefinite period, and no new fact has been added to the store of information on the subject.

GONORRHŒAL ORGANISMS.

DR. ALBERT NEISSER has contributed to the *Centralblatt für die Med. Wiss.* an interesting account of the micrococci to be seen in gonorrhœal pus. If a thin layer of gonorrhœal secretion is spread out upon a slide and allowed to dry, and then tinted by pouring over it an aqueous solution of methyl-violet, again dried, and examined with a very high power, the nuclei of the pus-corpuscles are seen of a dark violet-blue, their protoplasm being scarcely visible; and, in addition, there are more or less numerous heaps of micrococci, which have a characteristic appearance readily recognised. The individual micrococci are circular, and of some size, colouring deeply. They also colour with a strong solution of eosin, but are not thereby so well distinguished from the granule-masses of the pus-cells, as by methyl-violet. In methyl-green and indulin they are uncoloured. With imperfect objectives they appear to be surrounded by a line of light, which, perhaps, corresponds to a mucoid investment. These separate individual micrococci are, however, rare; usually two micococci lie together, so closely as to give the impression of a single organism of a figure-of-eight shape. The variations in form which are met with may best be understood by a description of the process of development. The isolated micrococcus is round, but soon increases to an oval body, and then there appears a constriction in the middle, which soon proceeds to complete division and the formation of two new micrococci. It is uncertain whether the numerous combined forms are due to the prolonged duration of this stage, or to the extreme rapidity and repetition of the process. Finally, however, the two separate, and remain apart at a distance from one another about equal to the width of a single micrococcus. Soon each of the separated organisms begins to elongate, and this time at right angles to the line of the original dehiscence. By its division a group of four originates. The continuance of this process leads to the formation of colonies of micrococci, each containing ten, twenty, or more individuals, which are surrounded by a mucoid investment, easily recognised by softened illumination of the field. These micrococci are most frequently found on the surface of the pus-corpuscles, rarely upon the epithelial cells. In some of the pus-corpuscles which are thus covered with micrococci the nucleus cannot be seen, appears, indeed, to be absent, and in others it could be observed to shrink as the micrococci grew into the corpuscle. This observation disposes of the possible suggestion that these micrococci are merely the product of the breaking up of the nuclei of the corpuscles.

The micrococci have been found in thirty-five cases of gonorrhœa of different duration, from three days to thirteen weeks. They could not be found in a chronic gleet of eighteen months' duration. Every case examined contained this organism and no other, and this form was absent in every specimen of pus examined from other sources, and also in the simple vaginal secretion. They were abundant in the vaginal secretion of two young girls who had been abused by a man suffering from gonorrhœa. The same organisms were found in abundance in the pus from the eyes of seven children suffering from ophthalmia neonatorum of from one to six weeks' duration, and in two cases of gonorrhœal ophthalmia in adults. Experiments on the pathological importance of these organisms are yet incomplete, but the universal coincidence with the disease certainly demonstrates their intimate connexion with it.

VACCINATION AND ERYSIPELAS.

A VERY interesting discussion on the relation of small-pox to vaccination took place at the first meeting of the Medical Society of Islington, on Tuesday night. The discussion was initiated by Dr. Ballard, whose care and thoroughness in investigating the causes of zymotic disease are universally allowed. Dr. Ballard insisted on the importance of distinguishing between erysipelas *after* vaccination and erysipelas *from* vaccination. He related cases in which erysipelas occurred after vaccination as a part of a general prevalence of erysipelas in the neighbourhood, and others in which it was traceable to sanitary defects in the house of the patient, while admitting the possibility of inserting septic material by neglecting the cleansing of instruments, or by careless ways of preserving lymph, as in carrying it between square pieces of glass and using it day after day. He regarded the occurrence of erysipelas as a very rare event, considering the number of vaccinated children—very much rarer than the occurrence of erysipelas after small-pox in bygone times, which are too apt to be forgotten by superficial objectors. The rarity of the event was testified to by various practitioners of large experience. One such, in forty years, had not seen a case; another, in sixty years, had seen two; another, with a very large experience, had seen one. Dr. Ballard thought the vaccinifer more apt to be inoculated with septic material than the vaccinated. He expressed his approval of the demand for a natural supply of animal lymph for those who prefer it. The period elapsing, in any given case, between the time of the operation and the time of the occurrence of small-pox was important in reference to the question of etiology. Where septic matter was introduced with the operation, either of vaccination or of tapping a vaccine vesicle, only four or six days would elapse. A longer interval would indicate that

the cause of erysipelas was in the insanitary condition of the house or the patient or the neighbourhood. Those who fear erysipelas should remember that it is much more likely to follow small-pox than vaccination, and they may gather from such discussions as that at Islington that medical men are deeply interested in thoroughly investigating every instance of accident after vaccination, with the view to making this benign operation as safe as any human operation can be.

THE QUEEN'S UNIVERSITY IN IRELAND.

IT would be well if the medical graduates would register as members of Convocation before the issue of a charter to the new university. By the University Education (Ireland) Act of last session all graduates who are members of the Convocation of the Queen's University at the date of the new charter, are, on complying with such conditions as the charter shall prescribe, to become members of convocation of the new university; whilst other graduates, in order to become members of convocation, must not only fulfil "the conditions," but possess "the qualifications" to be prescribed by the new charter. It is evident, therefore, that members of the existing convocation will be in a more favourable position than graduates as regards the convocation of the new university. At present all graduates of two years' standing are qualified to register, and can become life members of convocation on payment of one pound to the clerk of convocation.

THE CHOLERA IN INDIA.

IN spite of the advent of the cold and healthy season in India, cholera still hangs about many of the stations in the North-West Provinces, the Punjab, and Afghanistan. At Subatoo, a hill station on the old road to Simla, and four thousand feet high, the 70th Regiment reported 10 cases, 7 of them fatal, in the week ending 25th September. The same week some cases occurred at Peshawur, in the Artillery, Captain W. Graves, R.A., falling a victim on the 23rd. The 1-17th and the 1-25th Regiments, had respectively 5 and 2 deaths from cholera; while the 9th Foot, in camp at Jumrood, the entrance of the Khyber Pass, lost 4 cases out of 5 admissions on the 25th. The Artillery at Rawul Pindee have also been attacked, and report 4 deaths that week. Captain Milner, 1-18th Royal Irish, died at Pahnepore, in the Kangra district, from an attack of cholera on the 21st.

SPREAD OF DISEASE BY OMNIBUSES.

IT is strange that in the active search for the agents and agencies by which disease is disseminated, little attention has been directed to the most common stage vehicle in use in populous cities and pre-eminently in the metropolis—namely, the omnibus. If it were required to devise a means of propagating infection extensively, it would be difficult to devise one more effectual for the malignant purpose than that which is practically overlooked. The atmosphere of an ordinary omnibus is probably as impure as that of any chamber to which a susceptible person could be introduced, while the distribution of contagious diseases is ensured by the close packing to which passengers are subjected. We speak with bated breath of the perils of infection by cabs; but every contingency of the smaller vehicle, which can seldom be charged with more than one disease at a time, is a common incident of the omnibus. Those who travel in these magazines of filth and infection are exposed to a medley of germs and particles which may represent most of the communicable diseases. Children carried in omnibuses are, as it were, fumigated with the vapours arising from the bodies and clothes of persons, many of whom are on their way to or from hospitals or houses in which illness prevails. Let no one wonder where diseases are caught while public vehicles of this class are scarcely ever thoroughly cleansed or disinfected. So far as we are aware it has never yet been seriously proposed to take measures for the purification of omnibuses. The subject should not be wholly or permanently neglected.

THE THAMES VALLEY SEWERAGE SCHEME.

A MEETING of the Joint Board, elected to carry out this scheme, held a special meeting at Kingston on October 23rd. A letter was read from the Local Government Board indicating that as the president could not see the Thames Board official until November, it would be well that the latter should put their questions into writing. After some discussion it was agreed that the chairman should forward to Whitehall a statement in writing, explaining the difficulties in which the joint board had been placed. The next motion caused a great amount of discussion, but resulted in the adoption of a measure authorising the board to proceed with a provisional order for the compulsory purchase of land needed for carrying out Colonel Heywood's scheme. We trust that the board know all about the soil on which the farm is to be established, and also its level as regards the high-water mark of the river.

GLANDERS.

THE last annual report by Dr. Orme Dudfield, medical officer of health for Kensington, contains detailed notes of two fatal cases of glanders that occurred in his district. The disease had, it appears, existed for many weeks at two stables in Colville-mews, over which these unfortunate individuals (one a young woman of eighteen, and the other a child of fifteen months) were living. The construction of the entire range of buildings was bad, and the foul air necessarily ascended by the staircase from the stable, as the latter (though classed as a *private* stable) was practically unventilated. The young woman nursed the child, and thus probably contracted the disease, as the child's neck was extensively ulcerated. The father of the child seems to have had nothing to do with the horses affected. Medical officers of health are not in any direct sense responsible for the administration of the Contagious Diseases (Animals) Act. But, according to Dr. Dudfield's evidence, it appears that in several particulars the law had been evaded, or, at all events, not complied with; and so, as a result of the inquest, proceedings were instituted against the owner of the glandered horses, who was fined £20 and costs in each case, and the medical officer of health very properly received the thanks of the Privy Council for the action that he took in the matter. The fact, however, that two lives can be sacrificed in this miserable manner should make those vested with exceptional judicial authority most strict and active in seeing that the standing orders are carried out in their entirety.

BETTER LATE THAN NEVER.

WE are glad to learn that the authorities in India have at last realised the propriety of taking some notice of the services of the officers of the Medical Department employed in the late Afghan campaign. The correspondent of *The Times* telegraphs that a general order, highly laudatory of their services during the campaign and the return march to India, has been issued. "The names of the Surgeon-General and ten other officers are particularly mentioned, as also those of twenty-four surgeons serving with the different columns and base hospitals." We trust that this laudation is not all that is to be done for them, but that when the promotions and distribution of honours take place they may not, as heretofore, be neglected and forgotten.

THE CABUL OCCUPATION.

DR. TOWNSEND, Principal Medical Officer of General Roberts' army of occupation in Cabul, who was severely wounded in the face at the action at Karatiga on the 1st October, has been compelled to return to Kurrum; the medical administration of the force has therefore devolved on Surgeon-Major J. H. Porter, A.M.D., who will officiate as deputy surgeon-general until Dr. Townsend is able to return to duty.

The field hospital of the Khyber column has been divided into three sections, one attached to each brigade, with Surgeon-Majors Alfred Tippets, George G. Evatt, and J. Bartley respectively in medical charge.

SANITARY NOTES.

MR. DAVID DAVIES gives in his last report instances of the way in which fever, small-pox, &c., have been propagated lately in Bristol and its vicinity. The clothes of an unvaccinated child, suffering from small-pox, were sent to a common washing place, to be treated with other garments, without a process of disinfection. Enteric fever appears to have been spread by the process of washing milk-cans in water polluted with sulphuretted hydrogen gas, and with other water in which it is probable that the germs of typhoid existed. Several other parallel cases are recorded in the account of the proceedings of the Bristol Urban Sanitary Authority on the 10th ult., so that if the inhabitants of this ancient but not over-salubrious city are not made conscious of their insanitary sins, it will not be the fault of the present health officer.

SEVERAL communications have recently appeared in some of our Dublin contemporaries indicating surprise that scarcely any of the fifteen or sixteen sanitary officers officially connected with the city have been examined before the Sanitary Commissioners. It certainly seems strange that those best acquainted with the facts should have, in so important a matter, been to all intents and purposes quietly ignored.

THE village of Auchmuthie, near Arbroath, N.B., is, according to the *Aberdeen Herald*, still plagued with enteric fever, which continues without abatement, and is due, it is said, entirely to the absence of any systematic drainage.

HEALTH OF LARGE ENGLISH TOWNS.

FORTY-THIRD WEEK OF 1879.

A FURTHER increase in the fatality of diseases of the respiratory organs, due to the unseasonably low temperature, caused a further rise in the rate of mortality last week. In twenty of the largest English towns, containing nearly a third of the entire population of England and Wales, 5254 births and 3128 deaths were registered in the week ending last Saturday. The births exceeded by 72, whereas the deaths were 242 below the average weekly numbers during 1878. The deaths, however, showed a further increase of 165 upon those returned in the two previous weeks, and were equal to an annual rate of 22·1 per 1000, against 19·6 and 20·9 in the two preceding weeks. During the past four weeks of the current quarter the death-rate in the twenty towns has averaged 20·6 per 1000, against 21·5 and 21·6 in the corresponding periods of 1877 and 1878. The lowest death-rates in the several towns last week were 14·6 in Wolverhampton, 15·7 in Bristol, 16·2 in Portsmouth, 17·8 in Bradford, and 18·7 in Leicester. The rates ranged upwards in the other towns to 22·5 in London, 24·3 in Salford, 24·9 in Oldham, 25·7 in Manchester, and 26·4 in Liverpool. The deaths referred to the seven principal zymotic diseases in the twenty towns, which had been 474 and 468 in the two previous weeks, rose again to 474 last week; 166 resulted from scarlet fever, 93 from diarrhœa, 74 from measles, 61 from whooping-cough, and 59 from fever. The annual death-rate from these seven diseases averaged 3·3 per 1000 in the twenty towns last week, and ranged from 0·0 and 0·7 in Wolverhampton and Plymouth, to 5·5 and 5·7 in Liverpool and Newcastle-upon-Tyne. The fatal cases of scarlet fever in the twenty towns, which had steadily increased from 94 to 161 in the six preceding weeks, further rose to 166 last week; this disease showed the largest proportional fatality in Bradford, Manchester, Liverpool, Sunderland, and Newcastle-upon-Tyne. The deaths from measles were numerous both in Liverpool and in Leeds. In Birmingham 5 deaths were referred to fever, and 2 to diphtheria. Small-pox caused 5 more deaths in London, and one in Birmingham, but not one in any of the eighteen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals further declined to 36 on Saturday last, and only 5 new cases were admitted to these hospitals during the week, against 18 in the previous week. Small-pox caused 7 more deaths in Dublin. The 59 deaths referred to fever showed a further increase upon the numbers in the two previous weeks; 31 occurred in London, including 4 fatal cases of typhus. Ten of the 15 deaths from diphtheria were also returned in London.

Unfortunately the Registrar-General's statistics for the nineteen provincial towns do not show the fatality of diseases of the respiratory organs, which causes the principal variations in death-rates. This information is, however, given for London, and it appears that the deaths referred to these diseases which had been 190 and 318 in the two preceding weeks, further rose to 396 in the week ending last Saturday.

Correspondence.

"Audi alteram partem."

TREATMENT OF RETAINED PLACENTA IN ABORTION.

To the Editor of THE LANCET.

SIR,—In your issue of Oct. 24th Mr. H. J. Forster, in relating a case where he resorted to the injection of hot water, concludes with the remark—"In miscarriage, as a rule, very little anxiety need be felt about the retention of the placenta, as it is almost always extruded after a longer or shorter period." A careful perusal of the case forces upon one the conviction that, if a little more anxiety as to the removal of the placenta in this individual case had been shown, much anxiety on the part of the friends, and danger to the patient herself, might have been averted. Dr. Playfair, in his Science and Practice of Midwifery, vol. i., p. 278, states: "As long as any portions of the membranes are retained in utero, the patient is necessarily subjected to considerable risk, not only from the continuance of hæmorrhage, but also from septicæmia. Hence it may be laid down as a rule, that we can never consider our patient out of danger until we have satisfied ourselves that the whole of the uterine contents have been expelled."

In this statement I entirely concur, and for this reason venture to express my opinion in order that others may know the conclusion arrived at by Mr. H. J. Forster is by no means in accordance with professional opinion in England, whatever it may be elsewhere.

Only a short time since I was asked to see a lady who had been flooding, off and on, for eleven consecutive weeks subsequent to a miscarriage at the fourth month. "No anxiety" had been felt on the part of the practitioner, though considerable suffering and anxiety had been endured on the part of the patient during all these weeks." I removed a considerable portion of the placenta, and from this date the hæmorrhage was checked; but it took the patient another three months to regain anything like her former health.

M'Clintock, in his excellent edition of Smellie's Midwifery, says:—"He (Smellie) steers very judiciously between the two extremes of hasty, over-zealous interference

on the one hand, and a purely negative, temporising course on the other." Let such be our practice.

I am, Sir, yours obediently,

ARTHUR W. EDIS, M.D., F.R.C.P.

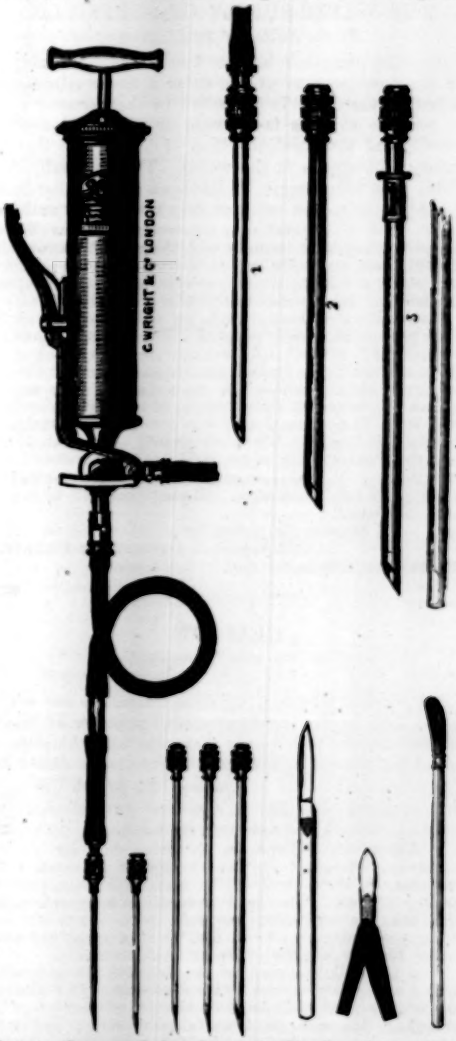
Wimpole-street, October 28th, 1879.

ASPIRATOR FOR LIVER ABSCESS.

To the Editor of THE LANCET.

SIR,—I beg to submit for consideration a modification of the aspirator, adapting it for the evacuation of liver or other abscesses.

It is simpler than that now in use. The tubes are larger, to give free exit to thick pus and flakes of tissue, and the points of the cannula are guarded so as to prevent



injury to the sac of the abscess itself. I enclose a sketch of the instrument, which was constructed for me by Messrs. Wright and Company, of New Bond-street, some time ago. I am inclined to think it will be an improvement, for liver abscess at all events, on the instrument now in use. I should have called attention to it ere this, but delayed until I had had an opportunity of satisfying myself of its efficacy.

But, as my attention has just been called to a very practical paper on the subject by Dr. Hamilton, A.M.D., I think it expedient to say now that the difficulties so well described by Dr. Hamilton induced me, some time ago, to suggest the construction of an instrument that should obviate them, and I am very glad to find that an officer of such large experience should, quite independently, have arrived at the same conclusions as myself.

Yours truly,

24th Oct., 1879. J. FAYRER.

PLEURAL AND DIAPHRAGMATIC TENSION.

To the Editor of THE LANCET.

SIR,—I think Mr. McLaurin (page 631) has missed the whole point of my argument. Even children are taught that atmospheric pressure alone enables a heavy weight to be raised by a piece of wet leather tightly pressed thereon; so, I argued, the opposing surfaces of the pleuræ could not separate so long as the pleural cavity was left intact; let this, however, be opened, as in the case alluded to, then the lungs must contract, and the vacant space be filled. That the contracting lungs should attract the intestines is a novel idea!

Sir W. Jenner, as the champion of the expiratory theory of pulmonary emphysema, can be safely left to defend this theory against all objectors. Certainly, at present, none have *proved* him wrong.

Mr. McLaurin must surely have forgotten that pneumothorax could not follow rupture of any pulmonary vesicles, unless their pleural covering was destroyed; as well, also, as the fact that communications exist in the mediastinal spaces, by means of which air from ruptured vesicles may pass into the cellular tissue of the neck, and thence into other parts.

Obediently yours,

RICHARD NEALE, M.D. Lond.

Boundary-road, St. John's-wood, N.W., Oct. 28th, 1879.

SEQUEL TO "CASE OF DISEASE OF THE AORTIC VALVES PRESENTING SOMEWHAT UNUSUAL SIGNS."

To the Editor of THE LANCET.

SIR,—The patient, R. D——, whose case was recorded in the columns of THE LANCET of October 25th, was re-admitted into the Newcastle Infirmary on October 23rd, complaining of great difficulty in breathing, pain in the chest, cough, hæmoptysis, and œdema of the legs. He rapidly got worse and died, evidently from *failure of compensation*, on the 26th of October.

The autopsy revealed, on raising the sternum, an enormous heart occupying anteriorly the greater part of the left chest, the anterior border of the lungs being widely separated by the colossal ventricles. As the organ lay *in situ* it measured transversely at the widest part nearly 17 centimetres (6¾ in.), and from the base to the apex 19 centimetres (7½ in.) It weighed 31 oz. The aortic valves were markedly incompetent, the leakage occurring principally through a hole (through which a crowquill could be passed) in the extreme posterior part of the right posterior semicircular flap, just in the angle between the free border and the attachment to the wall of the artery. Running up from the united attachments of the right posterior with the left posterior and the anterior segments, closely adhering to the wall of the artery, were two small masses (vegetations) about a centimetre in length, and standing rather prominent into the vessel. The aorta was otherwise healthy. The remaining valves of the heart were normal. The left ventricle was considerably hypertrophied (so-called *excentric*), the walls being 2½ centimetres thick. The middle lobe of the right lung was in a state of extreme engorgement amounting almost to pulmonary apoplexy, the tissue breaking down like currant jelly. The liver was nutmeggy; the brain and kidneys were markedly congested. The cæcum was found to be closely and strongly adherent to the iliac fascia and neighbouring muscles, the usual loose areolar tissue being augmented by firm bands which pressed somewhat on the external iliac artery.

From the above account of the post-mortem appearances, it will be seen that every feature in this somewhat unusual

case can be explained. The very exaggerated rasping thrill and extremely loud diastolic murmur were caused by the "sonorous vibrations of fluid veins" starting from the fenestrum in the valve, which being situated in the extreme posterior extremity of the right posterior segment, were conducted downwards and backwards, and not downwards and forwards—i.e., along the sternum.

The absence of the double murmur and double pulse in the right femoral, which were present in all the other large arteries, may be accounted for by the pressure exercised upon the external iliac.

I am, Sir, your obedient servant,

DAVID DRUMMOND, M.A., M.D.,
Physician to the Infirmary, Newcastle-on-Tyne.

October 27th, 1879.

AMPUTATION AT THE ANKLE-JOINT.

To the Editor of THE LANCET.

SIR,—I beg to trouble you with a few remarks on a modification of Syme's amputation at the ankle-joint, which has suggested itself to me, partly because of a case at present under treatment in which about half of the heel-flap has sloughed, and also because of the fact that such an accident is of frequent occurrence, more especially in cases of injury. The slow and often unsatisfactory recovery by granulation, and occasionally the necessity of a secondary operation, appear to me to render the following suggestion, if it has not been thought of before, quite a justifiable one. I would propose that in addition to the usual method, a flap be also taken from the front of the foot. This, if no sloughing takes place, will of course prove a redundancy, and will require to be shortened in a few days, but if half or more of the flap dies, and a very few days will decide this, then you have a reserve covering for the bone. This procedure will no doubt prevent the stitching up of the wound at the time of operation, and primarily may appear to be clumsy and unsurgical, but if in a few cases it obviates the necessity of any secondary operation, and in a considerable number of cases shortens the recovery and makes the result more satisfactory, then I think it worthy of trial, if its *pros* are not outweighed by its *cons*, and this I leave for discussion.

I am, Sir, your most obedient servant,

ALEX. MAXWELL ADAMS, F.R.C.S. Edin.

Lanark, N.B., October 25th, 1879.

FOREIGN BODY IN THE BRONCHUS.

To the Editor of THE LANCET.

SIR,—Having read with much interest the case recorded by Dr. Young in your issue of Oct. 18th, headed "Foreign Body in the Right Bronchus, which was expelled on the 102nd day," I beg to forward a sketch of a piece of wood ("teak") which was expelled from the right bronchus upon the bursting of an abscess, after retention for fifteen months. It occurred in the case of my own son. While on his passage to India, he had placed the bit of wood in his mouth, when it suddenly slipped through the windpipe and lodged in the right bronchus.

I remain, Sir, your obedient servant,

SPENCER T. SMYTH, M.D., F.R.C.S. Eng.

Tyson-road, Forest-hill, Oct. 20th, 1879.

"LOOKING AT HOME."

To the Editor of THE LANCET.

SIR,—A letter with the above heading was published in *The Times* on September 27th, calling attention to the defective condition of hotels and lodging-houses in this country as to their sanitary arrangements, and suggesting that a certificate of health, signed by the proper authorities, should be placed in the halls of such places for inspection by visitors.

Your article of October 25th again brings this subject to the notice of the profession and the public, and I venture to think, if continued in your influential journal, will be of great service to all.

In this town, Ramsgate, a move has been made in the right direction. In January of this year the Board of Improvement Commissioners issued a notice to the ratepayers in these words:—"In the interests of the town, and especially of hotel and lodging-house keepers, the Improvement Commissioners have instructed their proper officers to keep a register of, and grant certificates gratis to, houses duly certified by them to be in a proper sanitary condition."

The certificate is signed by the medical officer of health and town surveyor, after a close examination of the premises, and therefore is a valuable document to the possessor, as will be found out by those who, as you say, "take our money and for our lives they do not care."

I am, Sir, yours obediently,

Ramsgate, Oct. 28th, 1879. F.R.C.S.

THE WATER-SUPPLY OF SHEFFIELD.

To the Editor of THE LANCET.

SIR,—The paragraph in THE LANCET last Saturday on the above subject was written under a misapprehension of the facts of the case. It is implied in that paragraph that the question at issue is between the Sheffield sanitary authority and their medical officer of health, and that the sanitary authority is in the wrong. This is totally erroneous. The water-supply of this town is in the hands of a private company, and unfortunately the sanitary authority has no control whatever over this company. The Waterworks Company have recently sold the ground surrounding some of their reservoirs, and it is now being rapidly built over, roads are being formed, sewers, gas-mains, &c., will soon follow. I have condemned this proceeding in reports to the sanitary authority, and my opinions have on all points been *unanimously* adopted. The Health Committee of the Council, without a dissentient voice, approved of my report, and the Town Council *unanimously* adopted the proceedings of the committee. A memorial has been sent to the Local Government Board asking it to assist the sanitary authority. The difficulties of the case are considerable on all sides, but it is only fair that it should be understood that so far the Town Council of Sheffield has done its duty to the town thoroughly, and has supported its medical officer of health with rare unanimity. Hoping you will in fairness insert this letter,

I remain, Sir, yours, &c.,

THE MEDICAL OFFICER OF HEALTH.

Health Office, Sheffield, Oct. 25th.

GLASGOW.

(*From our own Correspondent.*)

THE medical session at Glasgow University was opened on the 28th by the newly-appointed professor of botany, Dr. Balfour, who took for his theme the unity between the animal and plant kingdom; and in conclusion adverted to the question of medical reform from the Scotch University point of view. Dr. Balfour's address was well delivered, and well received by a numerous audience.

At Anderson's College, on the same day, Dr. Andrew Buchanan, President of the Faculty of Physicians and Surgeons, by the request of the medical faculty, gave the opening address. The aged lecturer, in a speech replete with the fire of youth, tempered with the wisdom of eighty years' experience of life, drew a vivid picture of "The Biology of the Present Age," making special reference to milk as a medium of fever, and the question of alcohol as a life-preserver or life-destroyer. Old Glasgow men will be glad to know that, though the hand trembled somewhat, the voice had no faltering tone; and many former students averred that in his green old age Andrew Buchanan was renewing his youth. A perfect ovation awaited him at the conclusion of the address, the audience rising and cheering again and again.

HER ROYAL HIGHNESS THE DUCHESS OF CONNAUGHT, having become a patroness of the Samaritan Free Hospital for Women and Children, has evinced her interest by sending a donation of £25 in aid of the funds.

Obituary.

GEORGE WM. CALLENDER, F.R.C.S., F.R.S., &c.

THE death of Mr. Callender, at the age of forty-nine, would have been a sad event under any circumstances, but occurring, as it did, in mid-ocean, and in the midst of a summer holiday, in company of his two daughters, it is deeply so. For some time before leaving London in August for New York, Mr. Callender was not feeling strong, though he complained little. He was aware of the fact that he had albuminuria. Serious symptoms in connexion of Bright's disease showed themselves in Philadelphia during last month, where he received the advice of Dr. Da Costa. He became so ill as, in the opinion of his very intimate friend, Dr. Dennis of New York, to be unfit for the voyage; but he was naturally anxious to reach home, and left by the Cunard steamship *Gallia* on the 15th of October. The disease made rapid progress. Every care and consideration were shown by Mr. Callender's many friends in the United States. He was conveyed by special train from Philadelphia to New York on the morning the *Gallia* sailed. A special ferry was engaged to carry him to his ship. On his arrival he was received by his friend, Dr. De Vere Hill, one of the senior surgeons in the Cunard service, who was unremitting in his attentions to his patient both night and day, and made every provision for his comfort. In spite of all that was done, Mr. Callender gradually sank, and died about mid-Atlantic on Monday, Oct. 20th, at 3.30 A.M. Mr. Callender's body was brought to London on Friday night, Oct. 24th, and was buried in Norwood cemetery on Wednesday last.

Mr. Callender was born at Clifton, Gloucestershire, on June 24th, 1830. On the father's side he was descended from an old Scotch family, his immediate ancestors having settled in Barbadoes; and it may be interesting to note that nearly all his mother's family for more than a century had chosen medicine as their profession. He received his early education at "The Bishop's College," Bristol, under the Rev. Henry Dale as principal, one of his masters there having been the present Bishop of Ely. His first years of medical study were passed under the immediate care of his uncle, Dr. Lancaster, of Clifton. At first he very much disliked the profession he had chosen, and was anxious to abandon it, but the death of his mother, in 1848, led to his persevering in it as a matter of duty, because he wished to set a good example to his younger brothers and to avoid doing anything that should give his father additional trouble. Accordingly, in the following year he entered at the school of St. Bartholomew's by his uncle's advice. His career thereafter was throughout successful. He obtained numerous honours and prizes. He was admitted M.R.C.S. in 1852, and held the post of house-surgeon at the hospital for two years 1852–54. In July, 1854, whilst still holding the post of house-surgeon, he was appointed to the office of Registrar and Demonstrator of Morbid Anatomy. In July, 1860, he was made Demonstrator of Anatomy, and in 1861, on the resignation of the late Mr. Stanley as one of the surgeons of the hospital, he was elected to the position of assistant-surgeon, and in the same year was appointed to be secretary and treasurer to the hospital school. In 1865 he was appointed Lecturer on Anatomy. In 1866 he was elected on the Council of the Pathological Society, and occupied the post of secretary to the Clinical Society for 1867–68, and in the latter year (1868) was made consulting surgeon to the Western General Dispensary. In 1871, on the resignation of Sir James Paget, he was elected surgeon to St. Bartholomew's; in the same year he was elected a Fellow of the Royal Society, and later on still in the same year he was made Examiner in Surgery to the University of Cambridge. In 1872 he became Examiner in Surgery to the College of Physicians and Surgeons and surgeon to the Charterhouse. In 1873 he was appointed Examiner in Anatomy at the London University, Lecturer on Surgery in the hospital school, and Lecturer on Anatomy and Physiology, Royal College of Surgeons. In 1874 he was elected on the Councils of the Medico-Chirurgical Society and the British Medical Association, and in the same year he was a member of the Committee of Distribution of the Hospital Sunday fund. In 1876 he was made vice-president of the Pathological Society, president of the Clinical Society, and was elected a corresponding member of the Medical Academy of Barcelona. In 1877 he became consulting surgeon of the Royal Hospital for Diseases of the Chest, chairman of the Scientific Grants Committee, British Medical Association, consulting surgeon City of London Lying-in Hospital, and received for the second time the appointment of examiner in surgery to the Cambridge University. In 1878 he acted as president of the Surgical Section, British Medical Association, was made foreign corresponding member of the Society of Surgery of Paris, and was also appointed honorary associate of the Order of St. John of Jerusalem in England. In the present year he was appointed Examiner in Surgery to the University of London. The following are some of his writings:—"Femoral Hernia," treatises in "Holmes' Surgery"; various papers in Proceedings of the Royal Society, Philosophical and Medico-Chirurgical Transactions, St. Bartholomew's Hospital Reports, and the medical journals.

To enumerate the various offices held by Mr. Callender is to show that he filled a large and honourable place in the esteem of the profession and of the public. His steady progress upwards, after a somewhat reluctant beginning of the study of his profession, at the bidding of filial considerations, to the position of surgeon to St. Bartholomew's, Fellow of the Royal Society, and President of the Clinical Society, is a story which contains a moral for many a young man now beginning his first plodding lessons in anatomy. Mr. Callender not only enjoyed the respect of the profession at home, but of foreigners who made his hospital practice a subject of study, and did not consider their visit to London complete till they had made themselves familiar with his cases and his mode of treatment. There was nothing in Mr. Callender's mode of operating to explain the interest which his "clinique" commanded. There was nothing dashing or bold in it. He was, on the contrary, slow, careful, and painstaking. It was especially his manner in the after-treatment of cases—to take pains, personal trouble, to get them well. No device was too minute for his care if it in any degree mitigated pain, or fever, or advanced recovery. Those who have "gone round" with him will remember the pleasure with which he described little mechanical devices for more perfectly resting a wounded limb, or enabling it to be dressed with the *minimum* of disturbance. He attributed his results as much to such "lenient arts" of dressing and resting as to the antiseptic applications of carbolised oil to wounds, which formed such a characteristic feature of his surgery. Though his views of antiseptic dressing fell far short of Mr. Lister's, these surgeons agreed in the importance to be attached to minute details, and in their estimate of the importance of personal trouble in the supervision of each individual case. Details and personal trouble were so essential a part of Mr. Callender's treatment that he, in a way which to many will appear strange, declined responsibility for results in cases not completed under his care. The results which Mr. Callender obtained were remarkable. His published statistics have been challenged, but it was enough to see his cases to be satisfied that his methods were successful in minimising suffering, in warding off pyrexia, and in the ultimate recovery of his patients. Members of the Clinical Society will not have forgotten a recent account he gave of an injury to the head in which the brain was injured, where he washed out the wound and removed a good deal of broken-up brain-substance with carbolised water, the result being satisfactory.

Mr. Callender's personal qualities were familiar to many of our readers. He was a pleasant speaker, a kind host, and a genial companion. He took great interest in the success of the Clinical Society. There have been many men of greater natural ability, but there have not been many who have turned good natural ability to better use. He has raised the reputation of surgery and of the school to which he was attached, where he will be greatly missed.

UNIVERSITY OF OXFORD.—Examinations for the degree of Bachelor of Medicine, both for the first (or scientific) and the second (or practical) portions, and an examination for the certificate in State Medicine and the Public Health will commence early in December. The days and hours for each examination will be hereafter notified. Intending candidates are requested to send their names to the Professor, at the Museum, on or before Friday, Nov. 14th.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination, received the diploma in Dental Surgery at a meeting of the Board of Examiners on the 28th inst.:—

Davis, Harry, Kew.
Hammond, Gurnell Edward, Leinster-square.
Isard, William Alexander, Buenos Ayres.
Maggs, William Adolphus, Yeovil.
Magor, John Bernard, Penzance.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Oct. 23rd:—

Henslow, Fredk. Wakefield Doyle, Wermigay, Lynn, Norfolk.
Sheppard, Chas. Edw., Addison-gardens, South Kensington.
Smith, Robert Percy, Abbey Farm, Belvedere, Kent.

The following gentlemen on the same day passed the Primary Professional Examination:—

Ernest Edmund Newnham and William Frederick Walker, Charing-cross Hospital.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The following gentlemen were admitted Licentiates of the Faculty at the October sittings of the Examiners:—

Brysen, Mungo, Glasgow.
Jones, Richard Thomas, L.S.A., Aberystwith.
Morton, James C., Melbourne.
Ruddock, Thomas C., Heckmondwike.
Sutherland, Chas. J., L.R.C.P. Ed., South Shields.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The following gentlemen were admitted L.R.C.P. Ed. & L.F.P.S. Glas. at the October examinations in Glasgow:—

Andrews, Thomas M., Swansea.
Downes, Timothy C., Glasgow.
Holt, James, Newchurch.
Kelman, George, Glasgow.
Maconachie, James, Glasgow.
Nelis, William Francis, Glasgow.
Pullin, Frank B., Devon.
Stanger, Charles Ed., Glasgow.
Stilwell, Samuel D., M.D., Wigan.
Sutcliffe, Joseph, London.
Taylor, William, Durham.

QUEEN'S UNIVERSITY IN IRELAND.—The diploma in Midwifery was recently conferred on the following gentlemen:—

John Acheson, Henry K. Allport, James Barron, Robert Beattie, Henry Bingham, Thomas M. Corker, Joseph Crowley, W. E. Ashley Cummings, Samuel Dickey, Thomas Donovan, Hugh Greany, John Hartnett, John Hosford, Gilbert Kirker, Henry M'Cormick, John M'Cormick, Samuel M. Malcomson, John Martin, Chas. A. Mitchell, Robert Mowbray, Myles William O'Reilly, Daniel Reardon, Thomas Simpson, John Smyth, William Smyth, Samuel Strahan, Alexander Suffern, Horace R. Townsend, T. Kennedy Wheeler, Sinclair White, David L. Williams, John Wilson.

HEALTH OF DUBLIN.—During the September quarter the deaths registered in Dublin amounted to 1970, or 25·0 per 1000. Excluding 68 deaths not chargeable to the Dublin registration district, the death-rate was 24·2 per 1000. Zymotic diseases caused 383 deaths, a number considerably below the average, there being a decrease in the number of fatal cases from small-pox, measles, scarlatina, diphtheria, and whooping-cough, as compared with the preceding three months; while diseases of the respiratory organs were more fatal than the average for the corresponding quarter of the last ten years.

GRANTS IN AID OF SCIENTIFIC INVESTIGATION.—The following is a list of grants in aid of scientific investigation which have been made by the British Medical Association:—Dr. Ogston: for the research into the relation between bacteria and surgical diseases, £50. Mr. W. North: to discover what, if any, relation exists between the nitrogenous egesta and muscular work, £50. Dr. Ewart: to continue research into the life-history and pathological relations of specific organisms already known, and for the discovery of other similar organisms and the channels through which they enter the system, £10. Dr. Crocker: to continue his research on the physiological action of alcohol, with especial reference to its mode of elimination, £24 5s. Dr. Thin: to continue his research into the nature and development of conditions of life of the vegetable and animal parasites that infest the human skin, £5. Mr. Chiene: to continue his research on the subjects (1), are there present in organs of living animals particles which originate the bacteria met with after death? (2), do the discharges from wounds which are antiseptically treated contain organisms? £15. Dr. Barlow: to continue an experimental investigation into the changes produced in the bloodvessels by alcohol, £8. Dr. Ferrier and Dr. Gerald Yeo: researches with the view of testing the application of antiseptic surgery in cases of lesion of the skull, brain, and its membranes, £50. Dr. Newman: research on the functions of the kidney and on the physical conditions which regulate the flow of urine, £10. Mr. Malcolm Morris: an investigation into the anatomical characters of certain diseases of the skin allied to tubercular, scrofulous, typhoid, and syphilitic affections, £10. Dr. McKendrick: investigation on anæsthetics, £50.

BEQUESTS ETC. TO MEDICAL CHARITIES.—Mrs. Charlton, of Dudley, bequeathed £10,000 to the Guest Hospital, and £1000 to the Dispensary, both at Dudley. The General Hospital, Nottingham, has received £2024 under the will of Mr. William Jarman, and £100 towards the new wing, from Mr. Henry Heymann. Mr. Henry Harris, of Streatham, bequeathed £500 each to the Royal Hospital for Incurables at Putney, the Earlswood Asylum for Idiots, and the City of London Hospital for Diseases of the Chest. The West Norfolk and Lynn Hospital has received £500 under the will of the late Miss Mason, of Necton Hall; and Mrs. Sparke, of Feltwell, has given £100 to the same institution, in memory of her late husband, Canon E. B. Sparke. Mr. Thomas Southey, of Caversham, bequeathed £100 each to the London Hospital, the Earlswood Asylum for Idiots, and the Royal Berkshire Hospital at Reading, and £50 to the Clapham Dispensary. Mr. Edward Alers Hankey has given one hundred guineas to Queen Charlotte's Lying-in-Hospital.

Medical Appointments.

BALDWIN, F. B. J., M.R.C.S.E., L.S.A.L., has been appointed Senior House-Physician to Guy's Hospital, for November.

BATES, T., L.R.C.P.Ed., L.R.C.S.Ed., M.R.C.S.E., has been appointed a Surgeon to the General Infirmary, Worcester, vice Sheppard, resigned, and appointed Consulting Surgeon.

BERRY, W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the North Welney District of the Downham Union.

BOYLE, T., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the New Quay Urban Sanitary District, Cornwall, at £10 for one year, vice Moorman.

BROOK, W. F., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the No. 2 District of the Fareham Union, vice Hoare, resigned.

DUNCAN, J. T., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Silkstone District of the Penistone Union, and Medical Officer of Health for the Silkstone Sub-district of the Penistone Rural Sanitary District, vice Rowley, resigned.

EDMUNDS, W., M.D., has been appointed Assistant-Physician to the West-End Hospital for Diseases of the Nervous System, Paralysis, and Epilepsy, vice Heron, appointed Physician.

FIELD, A. F., M.D., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the Watton District of the Wayland Union, Norfolk, vice Alexander, whose term of office will expire on December 25th.

FITZPATRICK, T., M.D., has been appointed Certifying Factory Surgeon for the District of Clara, King's County, vice McLoughlin, resigned.

GRINDROD, J. A., M.R.C.S.E., has been reappointed Medical Officer of Health for the Norden Urban Sanitary District, Lancashire, at £10 per annum, till June 24th.

HALLOWES, W. B., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Certifying Factory Surgeon for the District of Newark, vice Matterson.

HANCOX, W. M., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Bilston Urban Sanitary District, at £50 per annum, for two years.

HIGHTON, T., M.R.C.S.E., L.S.A.L., has been appointed a Medical Officer to the Derby Provident Dispensary, vice Goode, deceased.

HOWELL, T. A. I., M.R.C.S.E., L.S.A.L., has been appointed Junior Obstetric Assistant to Guy's Hospital, for November.

HUNTER, W. B., M.D., C.M., has been appointed Medical Officer and Public Vaccinator for the South Welney District of the Downham Union, Norfolk.

JOHNSTONE, C. R., M.R.C.S.E., L.S.A.L., has been appointed Assistant Medical Officer to the Bethnal-green Workhouse, vice Butler, resigned.

JONES, T., M.B., F.R.C.S.E., has been appointed an Assistant-Surgeon to the Manchester Royal Infirmary, Dispensary, and Lunatic Asylum, vice Whitehead, appointed a Surgeon.

KEAL, W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Oakham District and the Workhouse of the Oakham Union, Rutlandshire, vice Turner, resigned.

LEGGE, R. J., L.A.H.D., has been appointed Assistant Medical Officer to the Wye House Lunatic Asylum, Buxton, vice Daniel, appointed Resident Assistant Medical Officer to the Crumpsall Workhouse, Manchester.

LINDEMAN, S. H., M.R.C.S.E., L.S.A.L., has been appointed House-Physician to the General Lying-in Hospital, York-road, Lambeth.

MORE, J. H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer to the Warrington Amalgamated Friendly Societies' Medical Association, vice Jack, whose appointment has expired.

NAPIER, Mr. J., has been appointed Public Analyst for the Eastern Division of the County of Suffolk, vice Wiggin, deceased, and upon the same terms.

OUTHWAITE, W., M.R.C.S.E., L.S.A.L., has been appointed a Medical Officer to the Camberwell Provident Dispensary, vice Russell, deceased.

POPE, F. M., M.R.C.S.E., has been appointed House-Physician to the Royal Hospital for Diseases of the Chest, City-road, vice Bland, whose appointment has expired.

SAVAGE, G. H., M.D., M.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed a Member of the Court of Examiners of the Society of Apothecaries, vice Copland, deceased.

SHEPPARD, G. A., M.R.C.S.E., L.S.A.L., has been appointed Consulting Surgeon to the General Infirmary, Worcester, on resigning as Surgeon.

SMITH, F. P., M.B., M.R.C.S.E., L.S.A.L., has been appointed Certifying Factory Surgeon for the District of Shepton Mallet, vice Walker.

SMITH, W. C. F., L.R.C.P.Ed., L.F.P.S.G., has been appointed Public Vaccinator for the District of Northowram and Shelf, vice Maclachlan, resigned.

WARNER, F., M.D., M.R.C.P.L., has been appointed an Assistant-Physician to the London Hospital, consequent upon the appointment of Dr. Fenwick as a Physician to the In-patients.

WITHINGTON, J. B., M.R.C.S., L.S.A.L., has been appointed Medical Officer of Health for the Doncaster Urban Sanitary District, at £75 per annum.

Births, Marriages, and Deaths.

BIRTHS.

BATTERBURY.—On the 25th ult., at Wimborne-Minster, the wife of George Henry Batterbury, M.D., of a daughter.

BROWN.—On the 25th ult., at Pollokshields, the wife of Robert Brown, M.D., of a son.

EAGER.—On the 27th ult., at Milton County Asylum, Suffolk, the wife of Wilson Eager, L.R.C.P.L., Medical Superintendent, of a daughter.

MILLER.—On the 22nd ult., at The Close, Basingstoke, the wife of F. D. Miller, Esq., L.R.C.P.L., of a daughter.

NOAD.—On the 23rd ult., at Chesham Lodge, Lower Norwood, the wife of Henry Carden Noad, L.R.C.P.L., of a son.

OULTON.—On the 20th ult., at Ballickmoyler, Queen's County, the wife of Henry William Oulton, M.D., of a son.

PERRY.—On the 22nd ult., at Queen's-terrace, Glasgow, the wife of Robert Perry, M.D., of a son.

THOMAS.—On the 28th ult., at Richmond, the widow of Edmund Frederick Thomas, L.R.C.P.Ed., of a daughter.

MARRIAGES.

LAW—PRICE.—On the 22nd ult., at St. Mary's, Eastbourne, by the Rev. Charles Marshall, M.A., Prebendary of St. Paul's and Vicar of St. Bride's, Fleet-street, assisted by the Rev. J. H. Usill, M.A., Incumbent of All Saints, Eastbourne, William Thomas Law, M.D., F.R.C.S.E., Resident Medical Officer at the Brompton Hospital for Consumption, to Georgiana Charlotte Elizabeth, second daughter of Edwin Plumer Price, Esq., Q.C., Recorder of York and Judge of County Courts for West Norfolk, and of Lucy, elder daughter and co-heir of John Harrison, Esq., and granddaughter of Robert Harrison, Esq., of Benningholme Hall and Ruisthorpe, co. York, and Ripley Court, co. Surrey.

LLEWELLYN—MASON.—On the 26th March, at St. Stephen's Church, Newtown, Sydney, New South Wales, by the Rev. Robert Taylor, assisted by the Rev. Joseph Dark, Rees Llewellyn, M.R.C.S.E. & L.S.A.L., J.P., of Braidwood, to Annie Mary, eldest daughter of Frank Mason, J.P., of Krawarree, near Braidwood.

PEACOCK—WARLTERS.—On the 2nd ult., at St. Mary's, Guildford, by the Rev. Canon Trimmer, assisted by the Rev. H. H. Letchworth, Henry George Peacock, L.R.C.P., M.R.C.S., L.S.A.L., Dorset County Asylum, near Dorchester, son of Dr. Henry Peacock, R.N., of Gloucester, to Mary Louisa, only daughter of the late John Cundee Warlters, of Farnham Royal, Surrey.

DEATHS.

BOWKER.—On the 4th ult., at Appleby-Magna, Robert Stanser Bowker, M.R.C.S.E., aged 64.

GOODDAY.—On the 19th ult., at Werter-road, Putney, Horatio Goodday, M.D., aged 72.

MASSINGHAM.—On the 26th ult., Joseph Ebenezer Massingham, M.R.C.S.E., of Green-street, Victoria-park, aged 63.

PERRIN.—On the 24th ult., at Southampton, Alfred Charles Perrin, M.R.C.S.E., aged 27.

RILEY.—On the 20th ult., Henry Riley, M.R.C.S.E., late of Clyde-terrace, Stockwell, aged 69.

RUSSELL.—On the 24th ult., at Doncaster, William Cook Russell, F.R.C.S.E., aged 69.

SANDWELL.—On the 23rd ult., at 10, Charles-street, Soho, W., Mary Jane, the dearly-loved wife of Dr. Edward Sandwell, and second daughter of the late J. Fernandez Clarke, Esq., aged 37.

WEIGHT.—On the 20th ult., at Wokingham, Berks, Edward Weight, M.R.C.S.E., aged 74.

WRIGHT.—On the 21st ult., at Hounsfield-road, Sheffield, James Farewell Wright, L.S.A.L., aged 79.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Oct. 30th, 1879.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Oct. 24	29·85	W.	57	56	..	60	53	0·04	Cloudy
,, 25	29·73	W.	49	47	..	56	46	0·22	Cloudy
,, 26	30·08	N.E.	43	41	..	56	37	..	Foggy
,, 27	30·12	S.E.	54	52	..	57	38	..	Overcast
,, 28	30·07	E.	51	48	..	54	49	..	Overcast
,, 29	30·17	E.	48	46	..	51	45	..	Overcast
,, 30	30·24	E.	50	47	..	55	46	..	Overcast

Notes, Short Comments, and Answers to Correspondents.

CAST-OFF CLOTHES AND CONTAGIOUS DISEASES.

IN an able article on this subject which appears in the columns of a French contemporary, Dr. Félix Brémond observes: "The annals of science are not wanting in well-authenticated examples of the transfer of disease germs by means of cast-off clothes. Adhering to the threads of the cloth, these germs remain concealed for days, months, and years, only awaiting some condition favourable to their evolution to manifest their presence—as, for instance, exfoliation of the epidermis, grazing of the tegument, special atmospheric condition, predisposing organic weakness, and the like. It was thus that the celebrated physician, Hildenbrand, took scarlatina in a country where it did not prevail through having put on an old coat which he had worn a long time previously when visiting patients suffering from that disease. In the same manner a servant at the Hospital St. Charles, at Nancy, contracted typhoid fever while in charge of clothes which had been used for typhoid fever cases. Pringle, in his 'Observations upon the Diseases of Armies,' published in 1837, cites a still more conclusive fact. On board certain vessels which carried typhus patients, there had been placed a number of old tents which were used as wrappers. These tents were afterwards delivered to a tradesman at Ghent for repairs, and he employed twenty-three men upon the work. These unfortunate men were soon seized with the disease, which carried off seventeen of them, although they had not communicated in any manner with the persons originally attacked. A circumstance is reported in the *Journal des Savants* of December, 1722, which shows that ropes may retain the pestilential principle for twenty years. Certain ropes had been used to carry the bodies of persons who had died of the plague. They were found in a forgotten corner, and fixed in a church to ring the bell, and the result was the death of the ringer and a great number of his fellow-townsmen. It may be said that these facts are old. A work has just been published at Marseilles which is not open to the same reproach. Under the significant title of the 'Influence of the Traffic in Rags and Disinfected Old Clothes in the Propagation of Small-pox and other Infectious Diseases,' Dr. Gibert, Surgeon to the Railway Company, Laureat of the Academy of Medicine, has published a treatise, in which, by means of official statistics concerning the city of Marseilles, he clearly establishes the necessity of regulating the trade in rags and cast-off apparel. Comparative observations upon the mortality from small-pox in each arrondissement, according to the population and the number of dealers in rags and old clothes during the years 1874 and 1875, warrant the author in stating that the mortality in the various quarters has been in a large degree proportional to the number of the traffickers in these articles carrying on business within them. To cite one example only: In the sixth arrondissement, where the Marseilles old-clothes' dealers congregate, and which also contains the petty market, there were 157 victims to small-pox in 1874-5, of whom 18 lived in the 46 houses of rag merchants, 17 in the houses immediately to right and left of them, and 29 in houses opposite. In his painful researches, Dr. Gibert met with one house, in the heart of the sixth arrondissement, where the cellar served as a clandestine store for rags, and where there had been six small-pox patients, four of whom had died. The conclusion at which Dr. Gibert arrives may be imagined. While bearing in mind the many causes of the propagation of contagious diseases, he maintains that the home and foreign trade in rags and the sale of the linen and clothes of patients are direct and permanent causes of the propagation of small-pox and other maladies of a similar nature."

Dr. David Page (Netherfield, Kendal) is thanked. The subject shall be noticed next week.

Mr. T. C. Fisher.—Of Cornish Brothers, Manchester.

THE PRINCE CONSORT AS A SANITARY PIONEER.

IN proposing the Health of the Queen at the dinner of the Sanitary Congress on Friday, Oct. 24th, Dr. Richardson referred to the labours of the late Prince Consort in connexion with sanitary science, and, in illustration of the interest which the Prince took in the subject, related the following anecdote:—"When," said the speaker, "I brought out the first number of my *Journal of Public Health* in 1855, so little public interest was taken in it, I felt that the effort was an utter failure. Out of the ranks of my own profession there was hardly a subscriber, and I was feeling quite in despair when one day a letter came to me from Sir James Clark, telling me that Prince Albert had seen and read my new venture, that he liked it very much, wished it every success, and had requested the librarian—Mr. Glover, if I remember correctly—to have two copies for the Royal Library. The circumstance was as unexpected as it was cheering, and to this day I have ever felt touched by it when the thought of it has recurred to me." This incident is one amongst many examples of the late Prince's quiet and effective manner of assisting the pioneers of works of usefulness, of which he was himself a pioneer. Had his life been spared, we doubt not but that sanitary progress would have been greatly advanced by his continued and watchful care.

Dr. W. O Lambert's paper will appear in an early number.

HÆMORRHAGE DURING PREGNANCY.

To the Editor of THE LANCET.

SIR,—The following case of hæmorrhage during pregnancy, presenting one or two curious features, may be of interest to the readers of THE LANCET.

Some two or three months ago I was sent for to a Mrs. A——, who, according to the husband's report, had been suddenly taken with severe bleeding. I found the patient in bed, looking somewhat pale and anxious. She informed me that she was pregnant with her tenth child, and supposed herself to be about seven months gone. Everything had been well until the evening before, when she fancied that she had overreached herself in getting something from a shelf. She felt a little faint at the time, but took no further notice, as the faintness passed away in a few moments. In the middle of the night she was awakened by a severe pain in the lower part of her back, and with a feeling as of something running from her. This she found to be a small quantity of blood. After two or three hours the pain and hæmorrhage ceased, and she fell asleep. Upon getting out of bed in the morning the bleeding returned, more profusely, but unaccompanied by pain. Finding this to be the case she sent for me. From the appearances I should judge that she was losing about two ounces of blood per hour. A vaginal examination discovered the hæmorrhage to be from the interior of the uterus. The os was dilated to the size of a sixpence. The lips were soft and cushiony, and through the opening the fœtal head could be felt covered by the membranes. The pulse was about 90, somewhat weak; the temperature normal. I placed the woman in the recumbent position, warned her of the probabilities of a miscarriage, and ordered her to rest entirely. I desired the friends to keep cold cloths applied to the vulva &c., and as a medicine prescribed small doses of acetate of lead and opium. By my visit the next day the hæmorrhage had ceased; but, fearing a return, I still confined the patient to the recumbent position, ordered her a nourishing diet, about two ounces of brandy per diem, and to continue the medicine. The following morning the hæmorrhage again commenced, although to a less extent, and after this time drugs seemed powerless to arrest the flow. I tried gallic and sulphuric acid, digitalis, &c., but without the slightest effect. The bleeding did not seem to weaken her very much, and she told me that she felt quite well. She remained in bed a week, and then, in spite of my wishes to the contrary, got up, and resumed her ordinary occupations. In this way she went on for about five weeks, the hæmorrhage continuing the whole time, and necessitating the use of diapers. At the end of the above period she was taken in labour, and before I could be sent for was delivered of a *living* child, which, however, was very weak, and died the following day. The nurse, in reply to my inquiries, stated that the labour was quite natural, and that the after-birth was removed without any difficulty, and was quite firm. The woman made a good recovery.

The curious features in the case appear to be the length of time the hæmorrhage continued without producing a miscarriage, and the fact of a *living* child having been born at or near the full term.

I am, Sir, yours faithfully,

Tavistock, October, 1879. W. H. REAN, M.R.C.S. Eng., &c.

Verax.—There is no law, in Scotland, which would touch a case of the kind. The Apothecaries Act, in England, is supposed to meet such instances.

"AN OBSCURE CASE OF POISONING."

To the Editor of THE LANCET.

SIR,—I have known symptoms similar to those described, and approaching almost to strangury, produced by taking soup which contained excess of parsley; but I do not recollect whether vomiting occurred or not.

I am, Sir, your obedient servant,

T. WEMYSS BOGG, M.B. Lond., &c.

St. Leonard's-on-Sea, Oct. 26th, 1879.

CHOLERA IN JAPAN.

THE *Temps* gives some particulars of the ravages of cholera in Japan. The epidemic appeared last April in the district of Ehime, where the tombs of soldiers who fell victims to it in 1877 had been opened, partly for religious rites, and partly for the more becoming interment of men hastily buried during the war. In a week 45 out of 56 cases proved fatal. It extended to other points, and at Osaka it is not uncommon to see persons fall down in the streets struck by it. In July it was reported at Tokio, the capital, and also at Yokohama, and in some western towns the epidemic has assumed proportions which it may be hoped will not be exceeded. Up to the 17th of August the total number of cases of cholera throughout Japan was 76,508, of which 41,915 had proved fatal, 9780 had recovered, and the remainder were still under treatment. Up to the end of September the number had reached 100,000. The Government has exerted itself to the utmost by establishing hospitals, forbidding the sale of unripe fruit (which the Japanese are accustomed to eat), and quarantine regulations. These last were disregarded by foreign vessels, the German ship *Hesperia* leaving its allotted anchorage, and landing its passengers and cargo in defiance of prohibitions, and the result is that the cholera has extended everywhere, including the Vittor Pisano, commanded by the Duke of Genoa, so that there are no longer quarantines or lazzarettos, for no purpose would be served by them.

M.D.—The statement must be authenticated.

THE STUDY OF CHILDREN'S DISEASES.

To the Editor of THE LANCET.

SIR,—In your very interesting article upon the neglect of the study of diseases as they are seen in children, you say: "The treatment of sick children forms a large part of the business of the general practitioner. This is as it should be; but it follows that he is the person to whom we must look for whatever light can be thrown by way of explanation on the notorious circumstance that of late years the study of disease as it occurs among children has been neglected beyond precedent, and, as far as we can see, without cause or excuse." As a general practitioner of twelve years' standing, I beg to offer what appears to me to be the explanation of this strange neglect. Although I cannot attempt a defence of our behaviour in this matter, I still hope to show that we are "more sinned against than sinning."

The chief reason is, I think, that general practitioners, as a rule, are so underpaid that, in order to make a living, they are obliged to work so hard that every minute is occupied, and thus but little time is left (whatever may be their inclination) for careful note-taking, and without this their experience is of very little service to others; for I suppose it will be generally allowed that the only real advance is gained by careful observation and record of a series of cases.

Again, for a long time past it has appeared to me that very little interest is felt by the more scientific members of our profession in the mere history of a case, its symptoms, course, and treatment; but they limit their interest to pathology, by which they do not understand "that part of medicine which explains the nature, causes, and symptoms of disease," but the microscopic structure of diseased tissues, and this we, as general practitioners, cannot give much information about, as we have great difficulty in obtaining post-mortem examinations.

Another reason, it appears to me, why general practitioners contribute so little to medical literature is because they have been persistently snubbed for so many generations, being regarded as merely "the meddlesome apothecary" spoken of by Mr. Dalby; and, finding their opinions ignored, they have feared to express them, lest they should merely excite the ridicule and contempt of those who imagine that "general practitioner" is a synonym for an ignorant man. But, in opposition to this belief, I am sure that a conscientious general practitioner has to work very hard to keep himself well posted in the various discoveries and advances in medicine, surgery, and midwifery, all of which he practises; and although his knowledge in each branch may not be as accurate as that of the specialist, I think I am right in believing that the better class of general practitioners have a larger general knowledge of medical science than the majority of those who practise in one department only.

I am, Sir, yours obediently,

Kennington, Oct. 23rd, 1879. A GENERAL PRACTITIONER.

THE HULL DISPENSARY.

Reform.—The cases are not quite parallel; but we agree with our correspondent in thinking that, in advertising the medical charities, it would be well to avoid advertising medical men.

OZOKERINE.

To the Editor of THE LANCET.

SIR,—For some time past I have used this substance as a basis for ointments and as an application for burns. It possesses no smell, is of firmer consistence than vaseline, and keeps for any length of time without becoming rancid or losing its consistence. It mixes with extract of belladonna (in equal proportions), which I find of the greatest use in preventing suppuration, especially of the breast. I should be glad to know if any of your readers have used ozokerine, for what purposes, and with what results.

Your obedient servant,

Sutton, Surrey, Oct. 1879. F. D. ATKINS.

STRETCHER-BEARERS IN THE GERMAN ARMY.

THE military authorities in Germany have always devoted considerable attention to the training of the men whose duty it is to pick up the wounded on the field of battle, and convey them to the nearest point for dressing wounds &c. Hitherto instruction in these duties has only been given in the infantry; but during the recent manœuvres of the German army the cavalry was made to take part in these experiments, which consists in showing them how to take wounded men off their horses, prepare vehicles for moving them, and apply some apparatus improvised with straw to fractures. The regimental doctors and their assistants superintended these experiments. This shows how attentive the Germans are to the smallest details which are likely to make their army more effective; for there can be no doubt that practical measures such as the above do more to ensure the sanitary service of the cavalry than all the magnificent projects for ambulances and their impedimenta, which cannot follow the squadrons on to the field of battle. In this respect the German army is far in advance of the French, each regiment having three chief doctors, four wound dressers and infirmary men, and several stretcher-bearers; whereas the French have only one doctor and no stretcher-bearers to each regiment.

R. D. might apply to one of the orthopædic institutions for information on the subject. We do not recommend particular physicians or surgeons.

Truth.—Impracticable in ordinary correspondence.

CROUP AND DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—The following case is interesting as an instance in which a fatal croup could not during life be traced to diphtheria, but in which evidence of a convincing nature as to the causal relationship accidentally came to light some weeks afterwards.

Mrs. F——, aged thirty-three years, came to see me on October 2nd, 1879, complaining of an alteration in her voice, suggesting by its peculiar nasal tone diphtheritic paralysis. On further inquiry I found that she had difficulty in swallowing, especially fluids, which often returned through the nose. She states that she had a sore-throat some three or four weeks before, and that she saw on looking in a mirror that it was "all white." However, she neither sought medical aid nor did she lie up. The interesting point is, that just before her throat became sore her little girl, two years of age, whilst suffering from whooping-cough, was attacked by croup, of which she died in three days. She was attended by my partner, Dr. Long, whilst I was out of town, who specially looked for membrane in the throat, but did not discover it. Dr. Long says there was no enlargement of the cervical glands—nothing to distinguish the case from an ordinary severe croup. No one except the mother, who repeatedly kissed the little girl when she was ill, suffered from sore-throat, although there were several other children in the house. Had not the mother happened to have diphtheritic paralysis, the case of her child would have been put down as one to which a diphtheritic origin could not possibly be attributed.

Yours &c.,

Dalston, October, 1879. A. T. GIBBINGS, M.D. Lond.

Dr. Stirling Christie.—1. The most widely read weekly periodicals are: *Berliner Kliniker Wochenschrift* and *Wiener Mediciniache Wochenschrift*. 2. Either *Archiv für Psychiatrie* (Hirschwald, Berlin) or *Allgemeine Zeitschrift für Psychiatrie* (Reimer, Berlin); the former perhaps the chief. Order of Williams and Norgate, Henrietta-street, Covent-garden.

Mr. George Odell.—The wine must be thrown away. The vegetable acids act easily on zinc, which is well known to be poisonous. The metal cannot be removed without spoiling the wine.

Dr. Wilkie Burnam.—Next week.

Mr. Herwin W. Phillips cannot do better than procure the Students' Number of THE LANCET, and study its contents. He will find there all the information he requires.

Dr. Woodhouse.—No.

Ajax.—The paper is marked for insertion.

"DEMAND FOR ARMY DOCTORS.

"(Don't they wish they may get them!)

"Wanted, for employment as medical officers in the British army, an adequate number of thoroughly well-educated physicians and surgeons, willing, on occasion, to expose their lives to the utmost danger in active service, without any expectation of receiving the Victoria Cross, or being otherwise distinguished or rewarded. They must have no objection to put up with indignity and neglect, be contented with an amount of pay not exceeding a sufficiency for their daily maintenance, and be prepared on their discharge to depend for their subsistence upon such private practice as they may hope to pick up by beginning the world again late in life. As the want of competent army physicians and surgeons is just now very urgent, the supply being far from equal to the demand, immediate applications are confidently expected at the War Office."—*Punch.*

DR. TILBURY FOX.

WE reproduce the following from the *Vierteljahresschrift für Dermatologie und Syphilis, 1879, 2 & 3 Heft, Vienna*:—

"On the 7th June there died in Paris, at the age of forty-three, of chronic heart disease, from which he had suffered for years, and of the extent of which he was perfectly aware, Dr. Tilbury Fox, one of the most skilful and industrious of English dermatologists. Born in 1836, the son of a practitioner at Broughton, he graduated at the London University in 1857, and became house-physician to the General Lying-in Hospital at Lambeth, when he published two essays on Obstetrics; he then became physician-accoucheur to the Farringdon General Dispensary. From that time he turned his attention to dermatology, writing in 1863 his well-known monograph on Skin Diseases of Parasitic Origin; and in 1864 his treatise on Skin Diseases, the fourth edition of which had just been published in conjunction with his brother, Dr. T. Fox, and has been translated into various European languages. In 1864, having held a travelling appointment in the East on the recommendation of Mr. Erasmus Wilson, he brought thence a treatise on Cholera and Egyptian Skin Diseases. In 1866 he was at first appointed physician to Charing-cross Hospital, and then, on Dr. Hillier's death, to University College Hospital, where he had since shown great practical ability and power of teaching, with the help afforded by the out-patient department, as well as by the beds placed at his disposal. The number of his special writings in the professional journals is very large. We cite only his Lettsomian Lectures on Eczema, his articles on Impetigo Contagiosa (which he was the first to point out), on Dysidrosis, and Herpes Tonsurans. He also issued a new edition of Willan's Atlas, with revised text, and during the last year an Atlas of his own on Skin Diseases, which has not been completed. In 1866 he edited with Dr. Farquhar the Report to the Secretary of State for India on certain Endemic Diseases of India and Hot Climates generally (London, Churchill), the valuable material contained in which has also frequently been made use of in this *Vierteljahresschrift*. In his chief work (Skin Diseases) Fox showed that he knew how to place himself at the point of view of modern science, and to take notice of everything new published abroad that was of value, to give in clear and concise language a remarkable account of the subject of diseases of the skin in a really scientific spirit. It is to be lamented that hitherto no German translation has been made of this careful and instructive handbook.

"The sudden death of Fox in the flower of his years and his activity, when he had completely emancipated himself from the bondage of the schools, from a cruel malady—a disease which deprived him neither of the power of work nor of courage to write, but assuredly made him a martyr—is a severe blow to dermatology in general, and especially in England—a blow which will be sadly felt by all his colleagues, who enjoyed his personal friendship."

HOME FOR PROTESTANT INCURABLES, CORK.

THE new building which has been erected on the Military-road, Cork, was last week opened by the Bishop of Cork. The total cost will be about £12,000, of which £6000 has already been subscribed. The building will be fitted up with every convenience for the purposes for which it is required; it is one of the finest of its kind in the United Kingdom, and when completed will be capable of accommodating 100 patients. We heartily wish the institution every success, and trust that the sum required (some £2500) will speedily be obtained. A beautiful marble tablet in memory of the late Bishop of Cork was unveiled during the ceremony, and the wing for male patients erected in remembrance of the same gentleman having been declared open, the proceedings terminated.

TREATMENT OF CHOLERA.

WE have received a communication from *Dr. McCabe*, of Bombay, who, writing after great experience in the Jamsetjee Jejeebhoy Hospital and elsewhere on the treatment of cholera, wishes to know if a mixture containing lime-water, dilute hydrocyanic acid, and brandy, has been tried systematically by any of our readers. Dr. McCabe thinks that the important point is to stop the vomiting, so as to enable the patient to retain the medicine and light food. He says that the hydrate of chloral has not in his (Dr. McCabe's) hands proved at all a success.

A Medical Student.—The temperature of 103° and other circumstances lead us to think that the case was one of great gravity, which would perhaps have done better under the continuous treatment of *one* medical man.

L. K. — We cannot answer questions in anatomy so obvious as that to which our correspondent refers. The examinations are in part *viva voce*.

M.D.—These institutions are private. When the Act comes into operation, a list of "retreats" and "asylums" will be published.

Mr. S. Benton.—Next week.